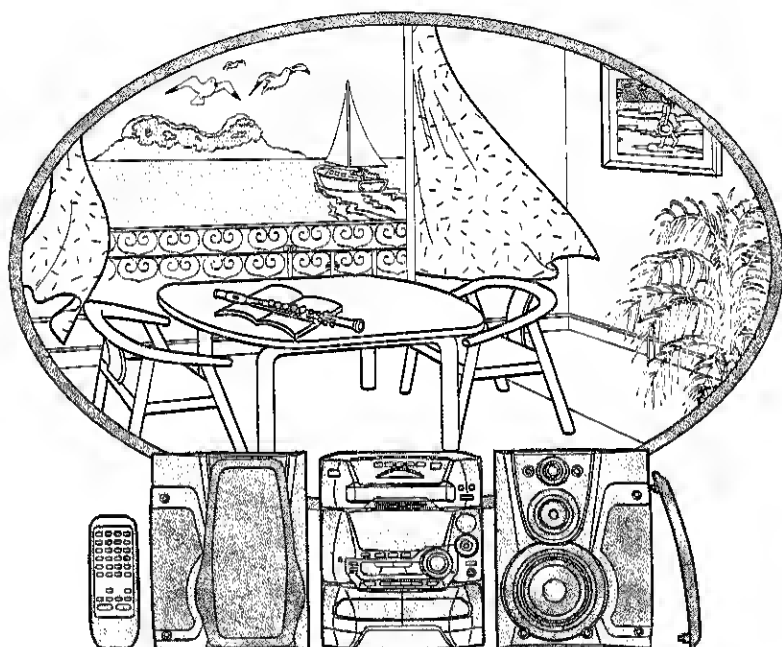


CD Stereo System

SC-AK45

SC-AK25

Operating Instructions



The illustrations show SC-AK45.

Panasonic[®]

Note:

The "EB" indication shown on the outside packing case indicates United Kingdom.

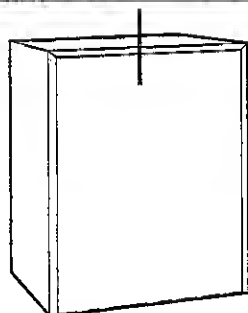
Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

These operating instructions are applicable to the following system.
These operating instructions, however, fundamentally explain the operation of system SC-AK45.

System	SC-AK45	SC-AK25
Main unit	SA-AK45	SA-AK25
Speakers	SB-AK45	SB-AK25



DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. UNNGÅ SIKKERHEDSafbrydere ER UDE AF FUNKTION. UNNGÅ UDSETTELSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALUKUTUS OHITETTAESSA OLET ALTUINA NÄKYMÄTÖN LÄSERSÄTEILYLLE. ÄLÄ KATSO SÄTEESSEIN.
VARNING	OSYNLIG LASERSTRÅLING NÄR DESSA DEL ÄR ÖPPNAD OCH SPÄRRING ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	USYNLIG LASERSTRÅLING NÄR DESSA DELÄR ÖPPNAD OCH BRYTES. UNNGÅ EXPOSERING FOR STRÅLEN.
VORSICHT	UNSICHTBARE LASERSTRÄHLUNG, WEENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

(Inside of product)
(Indersiden af apparatet)
(Tuoteen sisällä)
(Apparatens insida)
(Produktets insida)
(Im Inneren des Gerätes)

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT IN CABINET OR IN ANOTHER CONFINED SPACE IN ORDER TO KEEP WELL VENTILATED CONDITION. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION CONDITION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.

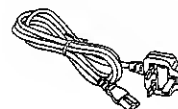
Supplied accessories

Please check and identify the supplied accessories.

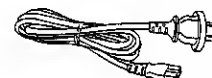


☐ AC power supply cord 1pc.

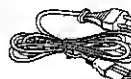
For United Kingdom
(VJA0733)



For Australia and N.Z.
(RJA0035-A)



For others
(RJA0019-2K)



☐ Remote control transmitter 1pc. (EUR644853)



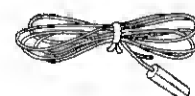
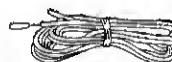
☐ Batteries for remote control 2pcs. (R6/LR6, AA size, UM-3)



☐ FM indoor antenna 1pc.

For Australia and N.Z.
(RSA0006-J)

For others
(RSA0007)



☐ AM loop antenna set (RSA0022) AM loop antenna 1pc.



Antenna holder 1pc.



☐ Antenna plug adapter (SJP9009) ... 1pc. (United Kingdom only)



Use numbers indicated in parentheses when asking for replacement parts.

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Suggestions for safety

Placement

Avoid placing the unit in areas of:

- direct sunlight
- high temperature
- high humidity
- excessive vibration
- uneven surfaces (Place the unit on a flat level surface.)

Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.

To protect the unit against sound distortion and acoustical effects, please place the unit at least 15 cm away from wall surfaces etc.

Stacking

Never place heavy items on top of the unit or the AC power cord.

Voltage

- It is very dangerous to use an AC power source of high voltage such as for an air conditioner.
A fire might be caused by such a connection.
- A DC power source can not be used.
Be sure to check the power source carefully, especially if on a ship or other place where DC is used.

Power cord protection

- Avoid cuts, scratches or poor connection of the AC power cord, as this may result in fire or electric shock.
Excessive bending, pulling or slicing of the cord should also be avoided.

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Technical specifications	Back Cover
Before moving or shipping this system	Back Cover

Foreign materials

- Ensure that no foreign objects, such as needles, coins, screwdrivers etc., accidentally fall into the unit.
Otherwise, a serious electric shock or malfunction could occur.
- Be extremely careful about spilling water or liquid on/into the unit, as a fire or electric shock could occur.
(Disconnect the power plug and contact your dealer immediately if this occurs.)
- Avoid spraying insecticides onto the unit as they contain flammable gases which can be ignited.
- Insecticides, alcohol, paint thinner and similar chemicals should never be used to clean the unit as they can cause flaking or cloudiness to the cabinet finish.

Service

- Never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem.
A serious electric shock could result if you ignore this precautionary measure.
- If a problem occurs during operation (the sound is interrupted, indicators fail to light up, smoke is detected, etc.) contact your dealer or Authorized Service Center immediately.
- Disconnect the power supply if the unit will not be used for a long time. Otherwise the operation life could be shortened.

Caution for AC Mains Lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT


The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below. Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

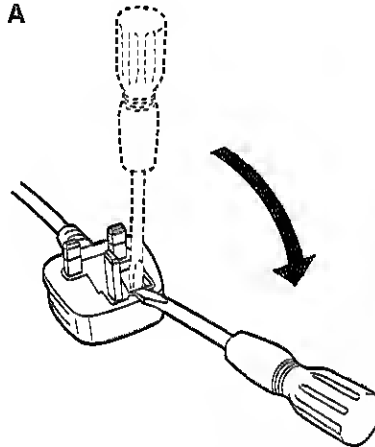
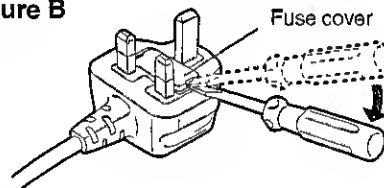


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

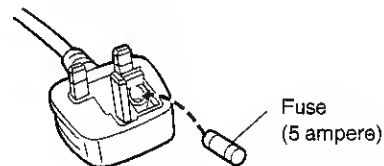
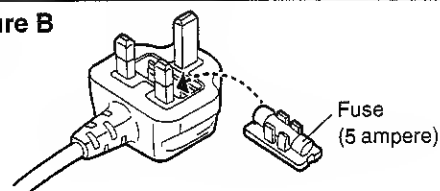


Figure B



Concerning the remote control

Battery installation

Use of batteries

- Do not mix old and new batteries, or batteries of different types (manganese and alkaline, etc.).
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- If the remote control is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.
- Do not attempt to recharge alkaline or manganese batteries.
- Do not use rechargeable type batteries.

Battery life

The battery life is about one year.

The batteries should be replaced if commands from the remote control transmitter do not operate the unit even when the transmitter is held close to the front panel.

Correct method of use

Operation notes

- Do not place obstacles between the remote control signal sensor and remote control unit.
- Do not expose the remote control signal sensor to direct sunlight or to the bright light of an inverter fluorescent light.
- Take care to keep the remote control signal sensor end of the remote control unit free from dust.
- If this system is installed in a rack with glass doors, the glass doors' thickness or color might make it necessary to use the remote control a shorter distance from the system.

To prevent damage

- Never place heavy items on top of the unit.
- Do not disassemble or reconstruct the unit.
- Do not spill water or other liquids into the unit.

Placement of speakers

For your listening pleasure, keep your speakers from touching the system.

SC-AK45

Place the speakers so that the Super woofer is on the outside. **C**

For your reference

You can take the front net off the speakers.

SC-AK25

Speakers are designed identically so that no left or right channel orientation is necessary. **D**

Note:

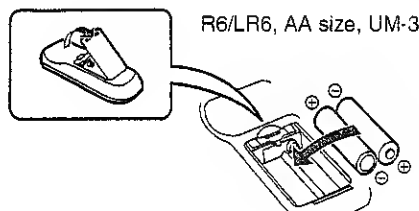
You cannot take the front net off the speakers.

Note:

The front speakers (for SC-AK45) are made so they can be used in close proximity of a TV, but irregular coloring may result due to how the system is placed. If such distortion occurs, turn off the TV for sometime between 15 and 30 minutes. The demagnetizing function of the TV will eliminate the distortion. If the irregular coloring is still visible, then move the speakers further away from the TV.

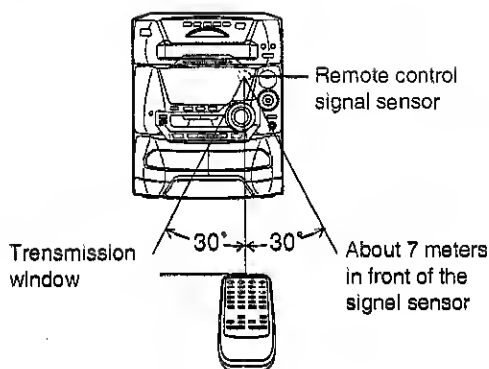
Please note that if there is a magnetic object near the TV, irregular coloring may result due to the interaction between the TV and the speaker.

A

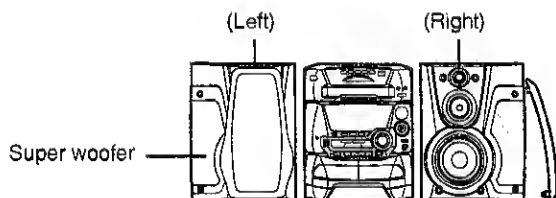


Insert the batteries observing the correct polarities (+, -)

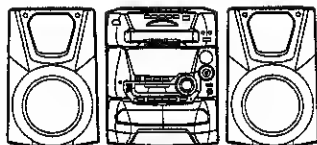
B

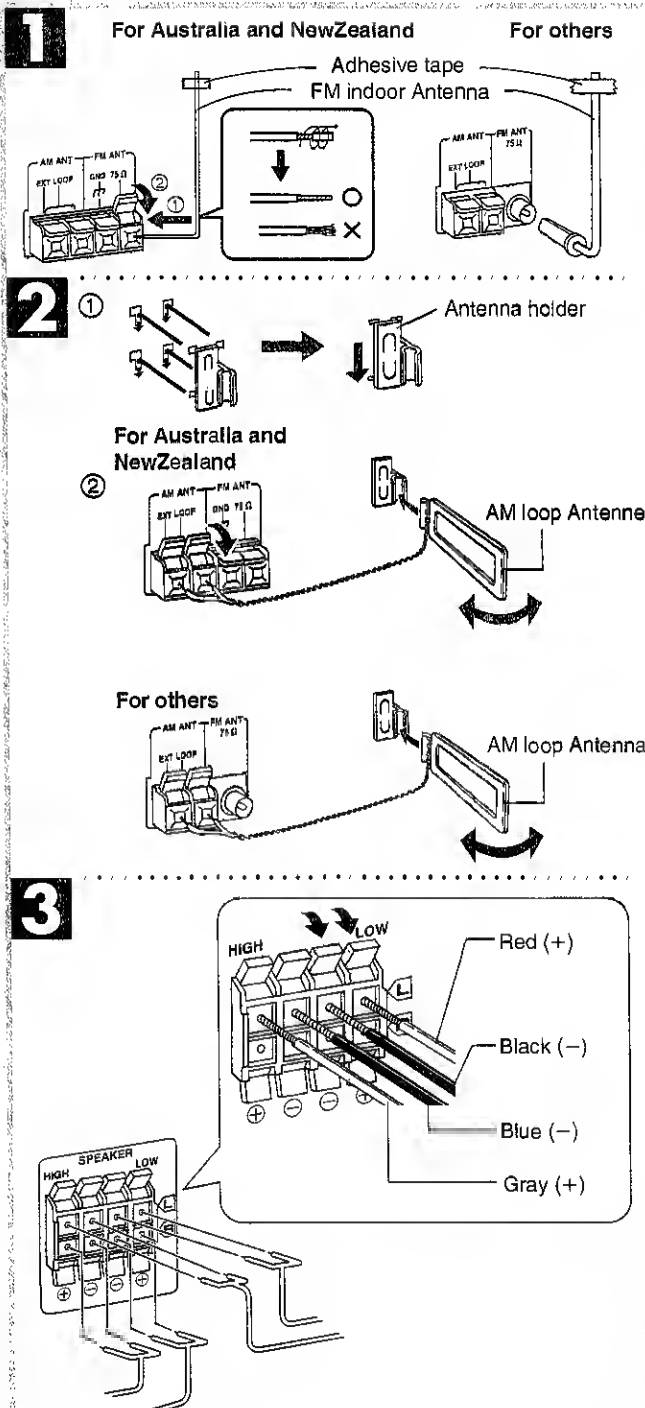
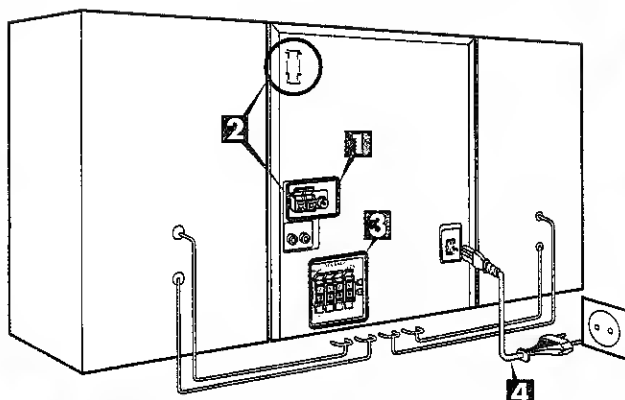


C



D





Connections

Basic connections (for supplied accessories)

- Plug the AC power cord into a household AC outlet only after all other connections have been made.
- To prepare the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.

1 Connect the FM indoor antenna.

Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

For Australia and New Zealand:

The configuration of the FM Antenna terminal is different.

Note:

For best reception sound quality,

An FM outdoor antenna is recommended. (See page 7.)

2 Connect the AM loop antenna.

After attaching the antenna, turn on the system and tune in a broadcast station. Then, turn the antenna to the angle of best reception and least interference.

3 Connect the front speaker cables.

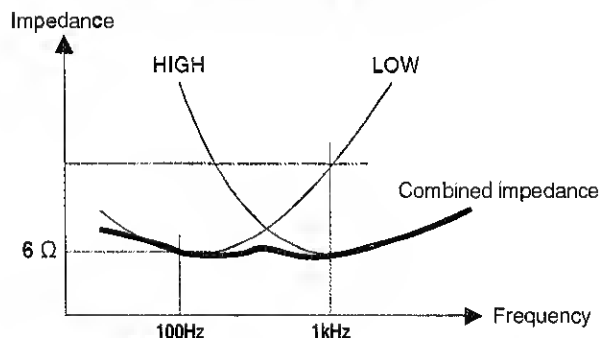
Caution

Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.

Connect each end of the speaker cables to the terminal lever of the same color.

When speakers are connected to the low and high terminals on the back of the main unit

They are designed to have a combined impedance of 6Ω. Be sure to use only the speakers supplied.



Caution

- Never use speakers other than those supplied. For instance, if you connect speakers with an impedance of 6Ω each and plug them into the low and high terminals, you will only have a combined impedance of 3Ω.
- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.

4 Connect the AC power cord.

(United Kingdom only)

BE SURE TO READ THE CAUTION FOR AC MAINS LEAD ON PAGE 4 BEFORE PROCEEDING TO STEP 4.

Insertion of connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.

However there is no problem using the unit.

Connections

Optional antenna connections

You may need an outdoor antenna if you use this system in a mountainous region or inside a reinforced-concrete building, etc.

FM outdoor antenna A

Disconnect the FM indoor antenna if an FM outdoor antenna is installed.

- ① Remove a piece of the outer vinyl insulator.
- ② Twist the shield braid.
- ③ Expose the core wire.

For Australia and New Zealand

The configuration of FM Antenna terminal is different.

Note

An outdoor antenna should be installed by a qualified technician only.

AM outdoor antenna E

Connect the outdoor antenna without removing the AM loop antenna. Run 5 to 12 m of vinyl-covered wire horizontally along a window or other convenient location.

Note

When the unit is not in use, disconnect the outdoor antenna to prevent possible damage that may be caused by lightning. Never use an outdoor antenna during an electrical storm.

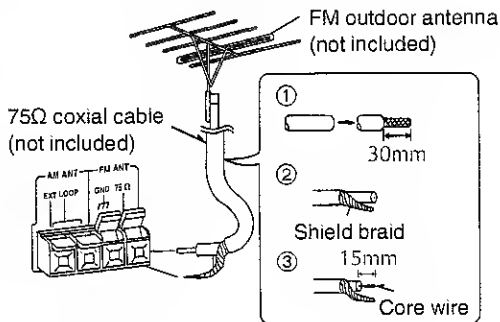
External unit connection C

- For details, refer to the instruction manual of the units which are to be connected.
- This example shows how to connect an analog player with the PHONO OUT/LINE OUT switch.
- When units other than those described below are to be connected, please consult with your audio dealer.

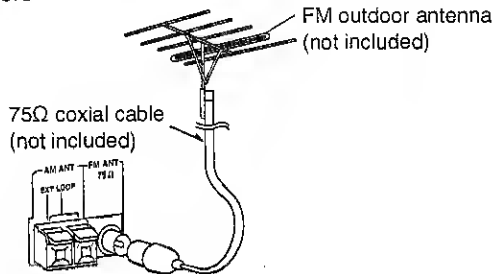
Note

- Only an analog player with a built-in phono equalizer can be connected.
- Set the switch to the "LINE OUT" position at the back of the analog player.

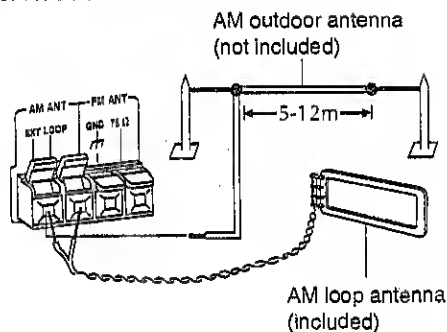
A For Australia and New Zealand



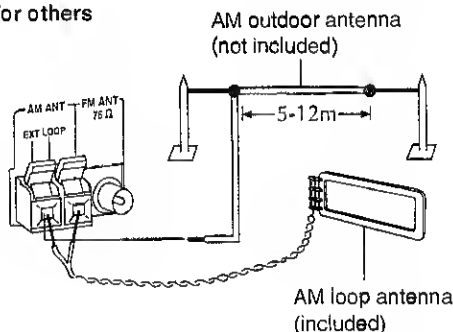
For others



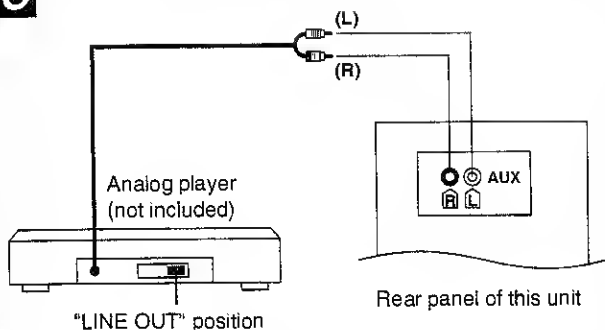
B For Australia and New Zealand

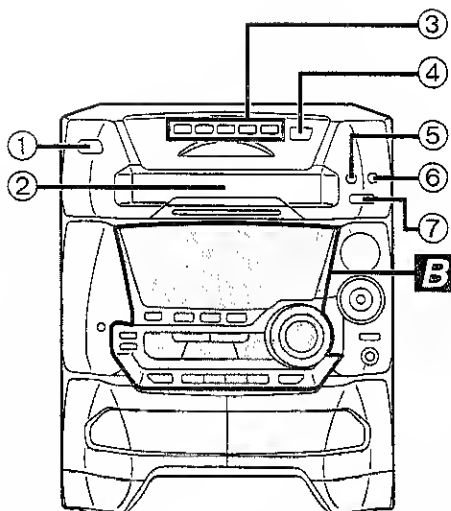


For others







C










Front panel controls

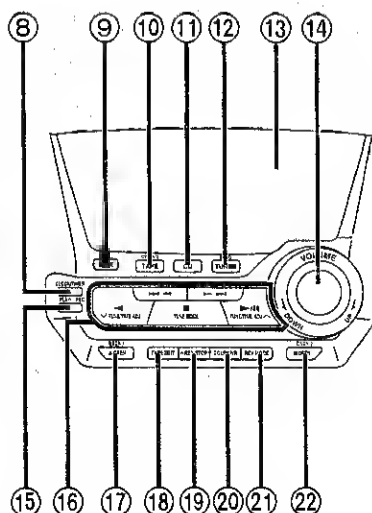
Main unit

No.	Name	Ref. page
①	Power "STANDBY  /ON" switch (POWER, STANDBY  /ON)	10
	Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.	
②	Disc tray	
③	Disc select buttons and indicators (DISC 1-DISC 5)	13
④	CD manager button (CD MANAGER)	17, 23
⑤	Disc tray open/close button ( OPEN/CLOSE)	13
⑥	Disc check open button ( NEXT OPEN)	13
⑦	Random play button (RANDOM)	15

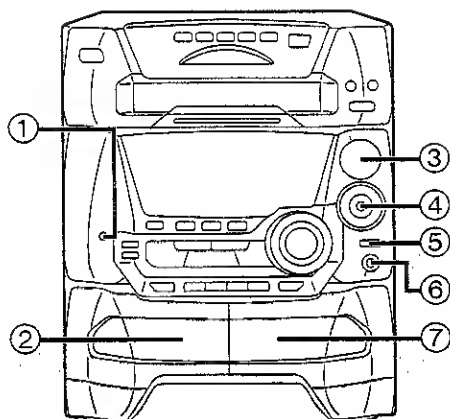
Center console

No.	Name	Ref. page
⑧	Clock/timer button (CLOCK/TIMER)	10, 28, 29
⑨	AUX button (AUX)	31
⑩	Tape/deck select button (TAPE, DECK 1/2)	18
⑪	CD button (CD)	14
⑫	Tuner/band select button (TUNER, BAND)	11
⑬	Display	
⑭	Volume control (VOLUME)	12
⑮	Play timer/record timer button ( PLAY/  REC)	28, 29
⑯	Basic operating buttons Functions change according to the source.	
⑰	Deck 1 open button ( OPEN, DECK 1)	18
⑱	Tape edit button (TAPE EDIT)	24
⑲	Recording start/stop button ( REC/STOP)	21
⑳	Except SC-AK25 model for Australia and New Zealand DOLBY noise reduction button (DOLBY NR)	18
㉑	Reverse mode select button (REV MODE)	18
㉒	Deck 2 open button ( OPEN, DECK 2)	18

B



Front panel controls



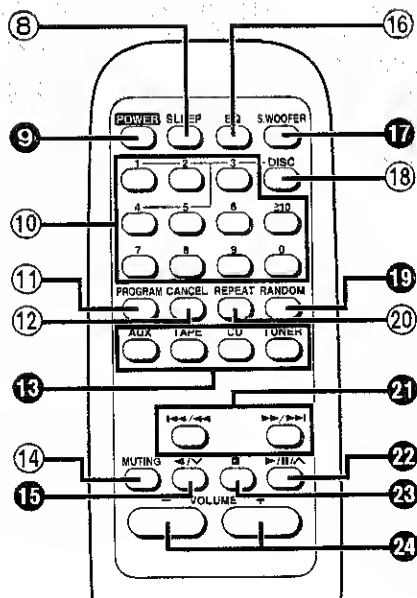
Main unit (continued) ㉔

No.	Name	Ref. page
①	Display select/demonstration button (-DISPLAY/-DEMO)	10, 32
②	Deck 1 cassette holder	18
③	Acoustic image equalizer display (AI EQ)	26
④	Sound equalizer control/indicators (SOUND EQ)	25
⑤	Super woofer on/off button (S. WOOFER)	25
⑥	Headphone jack (PHONES)	31
⑦	Deck 2 cassette holder	18

Remote control ㉕

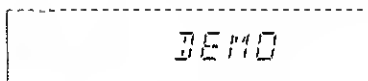
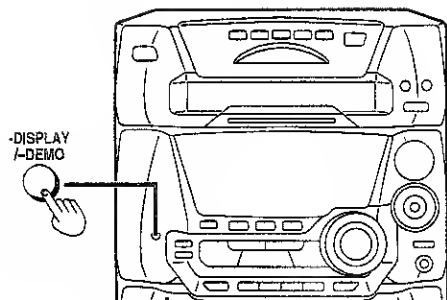
Buttons such as ㉙ function in exactly the same way as the buttons on the main unit.

No.	Name	Ref. page
⑧	Sleep button (SLEEP)	31
⑨	Power button (POWER)	10
⑩	Numeric buttons	16
⑪	Program button (PROGRAM)	16
⑫	Cancel button (CANCEL)	16
⑬	Input selection buttons (AUX, TAPE, CD, TUNER)	11, 14, 18, 31
⑭	Muting button (MUTING)	32
⑮	◀/√ button (◀/√)	12, 18
⑯	Equalizer button (EQ)	25
⑰	Super woofer on/off button (S. WOOFER)	25
⑱	Disc button (DISC)	16
⑲	Random button (RANDOM)	15
⑳	Repeat button (REPEAT)	15
㉑	⏮/⏪ ⏩/⏭ buttons (⏮/⏪ ⏩/⏭)	14, 19
㉒	▶/⏸/⏹ button (▶/⏸/⏹)	12, 14, 18
㉓	Stop button (■)	14, 18
㉔	Volume buttons (- VOLUME +)	12

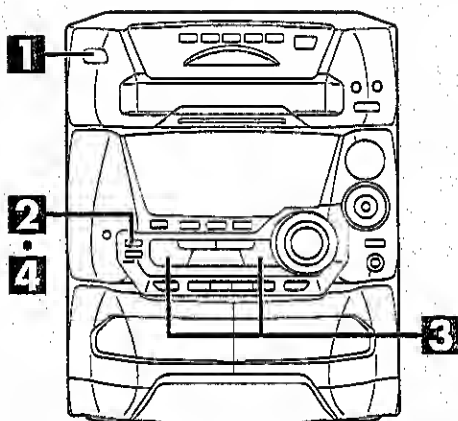


A

Before using



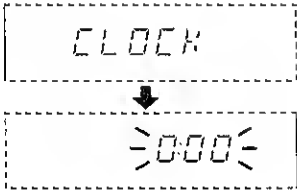
B



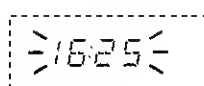
1



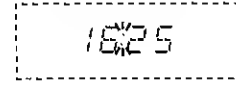
2



3



4




Demo function

When the demo function is activated, a demonstration of the spectrum analyzer using space travel images is shown on the display panel.

Turning the demo function ON/OFF

Press POWER and hold down DISPLAY/DEMO.
Every time you hold down the button;

DEMO (ON)  NO DEMO (OFF)

When the demo function is ON, the demo is played automatically in the following cases.

● When the system is ON

If the input source is set to CD or tape, and the system is left on standby for more than 2 minutes

● When the system is OFF

If the clock has not been set

Setting the time

This is a 24-hour display clock.

This example in the figure shows how to set the time for 16:25 (4:25 p.m.).

1 Switch on the power.

2 Press CLOCK/TIMER to select "CLOCK".

Every time you press the button;

CLOCK →  PLAY →  REC

↑ Previous display ↓

3 (within 7 seconds or so)

Press  or  to show the present time.

4 Press CLOCK/TIMER to finish setting the time.

The display will return to whatever was displayed before you set the time.

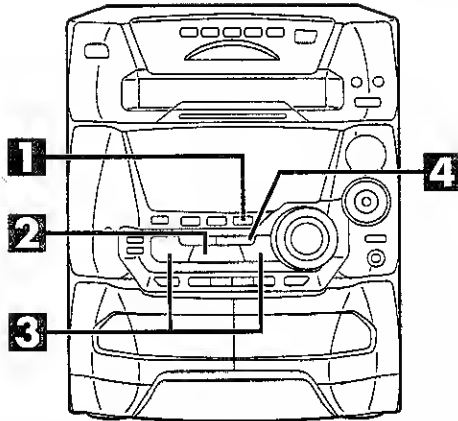
To display the time when power is ON

Press CLOCK/TIMER to select "CLOCK".

The time will be displayed for about 5 seconds and then the display will return to whatever was previously displayed.

Presetting radio broadcasts

- Up to 12 stations can be set in each band with the automatic or manual memory presetting.
- If broadcast frequencies are preset in the memory, you can easily tune in any of these frequencies from the system or remote control unit.
- You can preset just those stations you like. (See "Presetting only your favorite stations" below.)



1 Press TUNER BAND to select band.

The power will come on automatically.
Every time you press the button; "FM" ↔ "AM".

2 Press TUNE MODE to select "MANUAL".

Every time you press the button; "MANUAL" ↔ "PRESET".

3 Press ∇ or Δ until the display shows the frequency from which you want to begin automatic memory presetting.

Tips on tuning in radio stations

- ① Hold down either arrow button until the frequency numbers start scrolling.
- ② When near to the frequency you are looking for, press the button repeatedly until the station tuned in.

4 Press and hold MEMORY until the frequency begins to change.

This will start presetting automatically. When finished, the radio will tune in last station memorized.

If auto presetting is not possible because radio signals are weak or for some other reason, do the following.

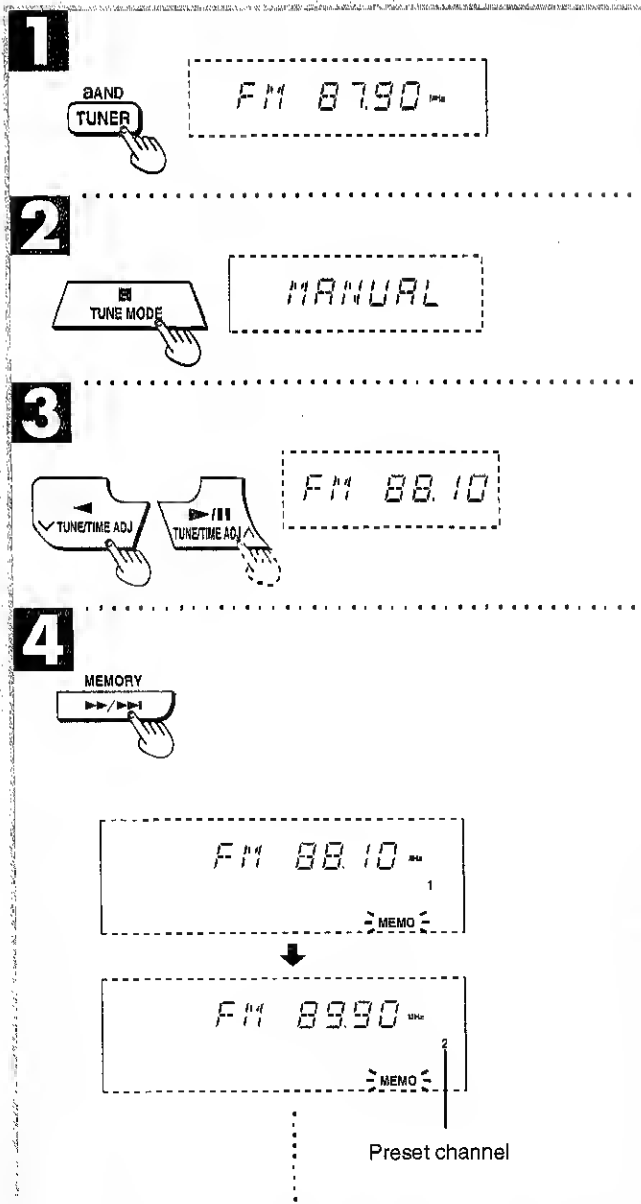
Presetting only your favorite stations

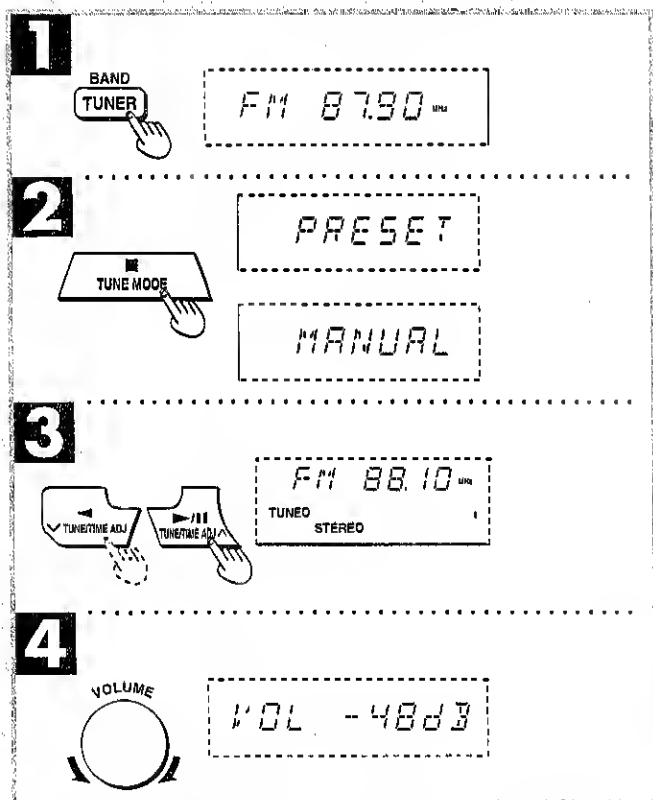
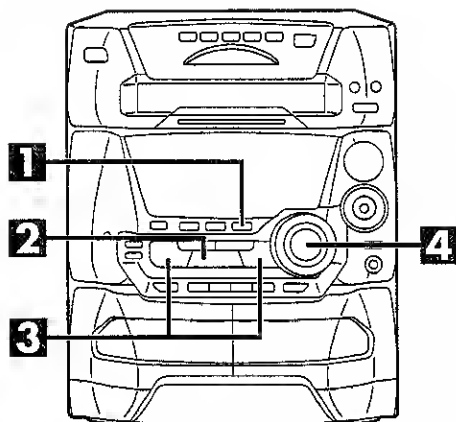
Preset the stations one at a time.

1. Perform step 1 above. Then, press MEMORY ("MEMO" flashes) and select a station with ∇ and Δ .
2. While "MEMO" is flashing press MEMORY again and select a preset channel with ∇ or Δ .
3. Press MEMORY to preset the station.

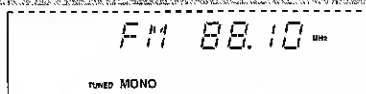
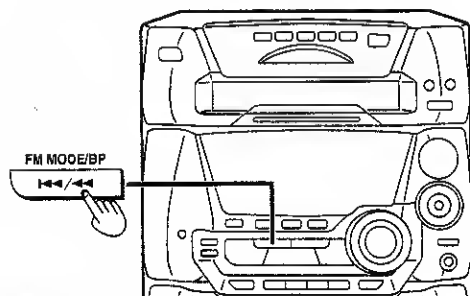
Memory retention

Your preset is retained in memory for about 2 weeks while the system is unplugged.





A



Listening to radio broadcasts

- 1 Press TUNER BAND to select band.**
The power will come on automatically.
Every time you press the button; "FM" ↔ "AM".
- 2 Press TUNE MODE to select "PRESET" or "MANUAL".**
Every time you press the button; "MANUAL" ↔ "PRESET".
PRESET: For preset stations
MANUAL: For non-preset stations
- 3 Press ∇ or \blacktriangle to select the desired broadcast.**
"STEREO" lights when an FM stereo broadcast is being received. "TUNED" lights when you precisely tune in a broadcast station.
- 4 Adjust the volume level.**

Auto tuning

Auto tuning is an easy way to tune in non-preset stations in the "MANUAL" mode.

Hold down either ∇ or \blacktriangle , and release the button when the frequency starts scrolling.
The radio will stop automatically on the first station it picks up.
• When there is outside interference, the radio sometimes stops on a certain frequency where no station is broadcasting.

To stop auto tuning
Press either ∇ or \blacktriangle again.

If noise is excessive in the FM stereo mode

Press FM MODE/BP. "MONO" will light up.
Sound will be produced in monaural, but this also reduces noise.
Press the button again to cancel. "MONO" will go out.

Normally, you'll want to listen in stereo, so leave "MONO" off. This way, you can listen to stereo broadcasts in stereo, and monaural broadcasts in mono.

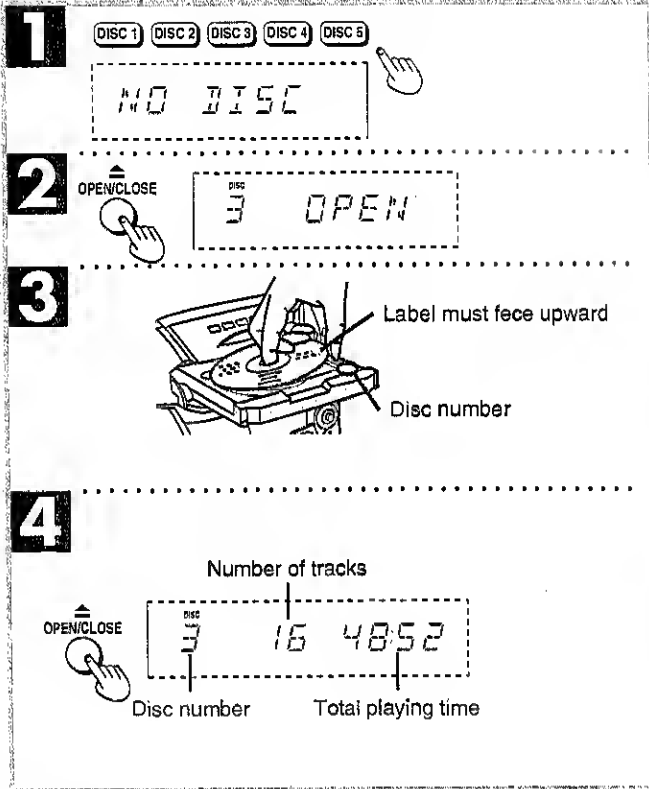
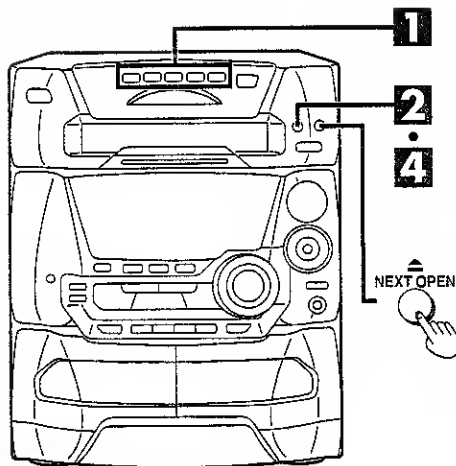
You can preset an FM station monaural by following the steps under "Presetting only your favourite stations" on page 11.

After selecting the station in step 1, select "MONO" with FM MODE/BP, then continue with step 2 and 3.

Note

- If you preset stations in memory, you can tune in a preset station by simply selecting the preset channel with the numeric buttons on the remote control.
 1. Press TUNER on the remote control.
 2. Press the numeric button(s) to select the desired channel.
Press ≥ 10 and then two numbers you want within 10 second or so.
- Sound is momentarily interrupted if you load/unload tapes while listening to an AM broadcast.

Listening to compact discs



Loading and checking CDs

Always stop the changer before loading or changing CDs. You cannot change CDs while a disc is playing.

How to load CDs

- 1** Press DISC 1-DISC 5, whichever you want to open.
The power will come on automatically.
- 2** Press Δ OPEN/CLOSE.
The selected tray will open.
- 3** Set CD in the tray.
- 4** Press Δ OPEN/CLOSE.
The tray will close and the disc No., number of tracks and total playing time will be shown on the display.

To load several CDs consecutively or to check which trays have discs

Press Δ NEXT OPEN.

Every time you press the button, the next tray will open. After loading all the CDs you want, press Δ OPEN/CLOSE end close the trays.

Disc indicators (DISC 1-DISC 5)

SC-AK45

Disc indicators turn the following colors whether the tray is loaded or not.

Green	When selected (When in the playing position)
Orange	In all other cases

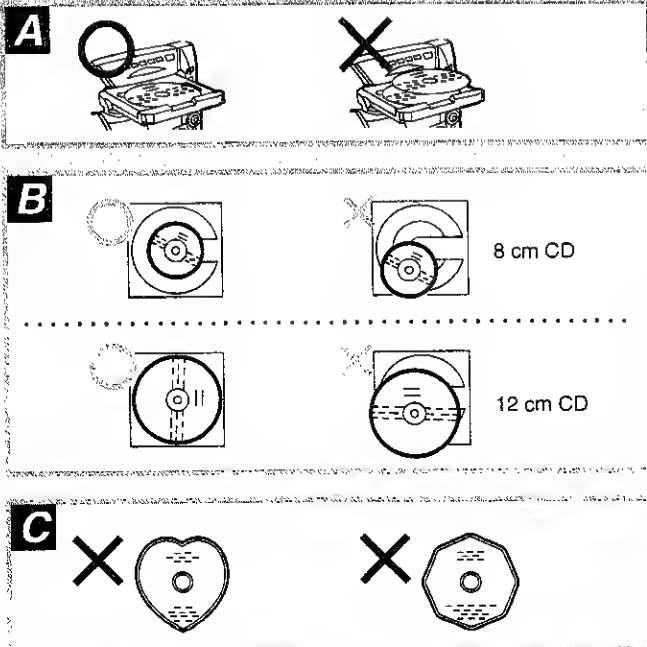
SC-AK25

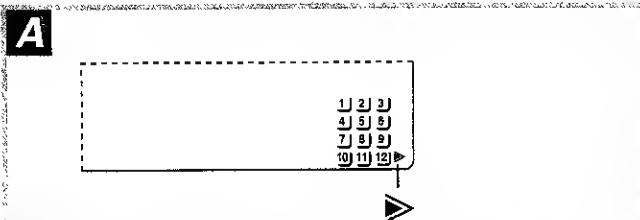
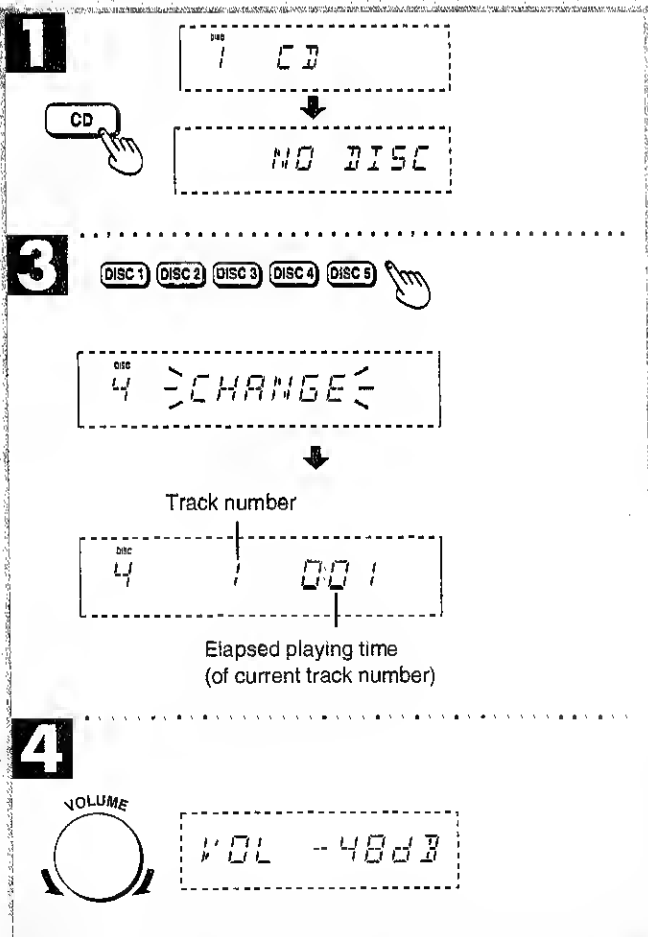
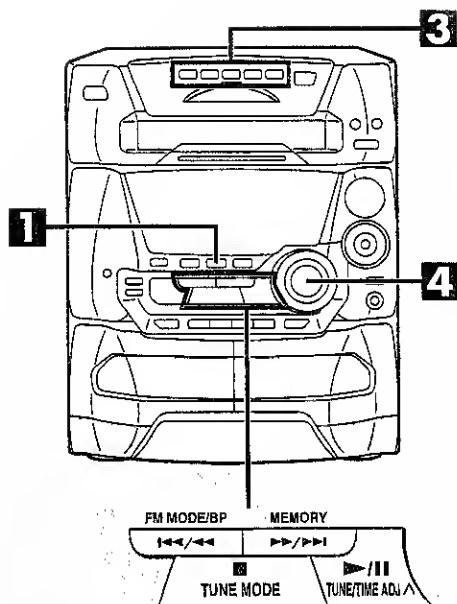
These indicate the selected tray (in the play position) regardless of whether a CD is on the tray or not.

To prevent damage

Always observe the following points.

- Load only 1 CD per tray. **A**
- Load CDs as shown in figure **B**.
The adapter is not needed with 8 cm CDs (singles).
- Set the system on a flat, level surface.
Do not set it on top of magazines, inclined surfaces, etc.
- Do not move the system while trays are opening/closing, or when loaded.
Always unload all CDs and set the system to "shipping mode" (back cover) before moving the system.
- Do not put anything except CDs in trays.
- Do not use cleaning CDs or CDs which are badly warped or cracked.
- Do not use CDs with poorly attached labels or stickers.
Adhesive protruding from underneath stickers or left over from peeled off stickers can cause your stereo to malfunction.
- Do not use irregular shape CDs (heart-shape, octagonal, etc.). **C**





Listening to compact discs

Sequential play

- 1 Press CD.**
The power will come on automatically.
- 2 Insert CDs in the trays.**
(For details, see page 13.)
- 3 Press DISC 1-DISC 5 to select the disc you want.**
(If the desired CD is indicated on the display panel, the same operation can be accomplished by pressing ►/||.)
Play will start from the first track on the selected disc, and will continue until the last track of the final disc is played (see below).
- 4 Adjust the volume level.**

To stop the disc play

Press ■.

When "►" appears on the display 2

It indicates there are 13 or more tracks on the disc in the playing position.

What is meant by "final disc"?

For example, if play starts from disc 4, disc 3 will be the "final disc".

Order of progression:

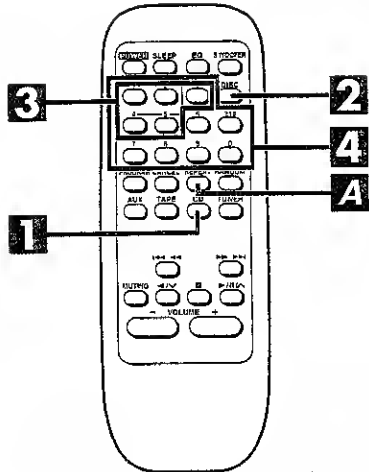
Disc 4→5→1→2→3

To pause	Press ►/ during playback. To resume playback, press ►/ .
To search forward/backward (Search)	Hold down ◀◀/▶▶ (backward) or ▶▶/▶▶ (forward) during playback or pause mode.
To skip forward/backward	Press ◀◀/▶▶ (backward) or ▶▶/▶▶ (forward) during playback or pause mode.

Note

- During random play (page 15), you cannot skip to tracks which have already been played.
- During program play (page 16) or random play, you can search forward or backward only within the current track.
- During program play, skipping is always in the programmed order, whether forward or backward.

Listening to compact discs



Direct access play

by remote control only

- 1** Press CD.
- 2** Press DISC.
- 3** (within 10 seconds or so)
Press 1–5 to select the disc you want.
- 4** Press the numeric button to select the desired track number.
The CD will be played from the selected track to the last track of the final disc (page 14).

To select a two-digit track

Press ≥ 10 and then the two numbers you want within 10 seconds or so.

For example

Track no. 20: $\geq 10 \rightarrow 2 \rightarrow 0$

Track no. 35: $\geq 10 \rightarrow 3 \rightarrow 5$

Repeat play

by remote control only

Press REPEAT before or during play. **A**
All tracks on the loaded CD are repeated.

To cancel repeat play

Press REPEAT once again.

To repeat your favorite tracks

1. Program the tracks you want (page 16).
2. Press REPEAT and make sure " " is displayed.
3. Press $\blacktriangleright/\text{II}/\blacktriangleleft$. Playback will start.

To repeat just one track

Set the 1-TRACK mode (page 17), press REPEAT before or during playback, and make sure " " is displayed.

Random play

Press RANDOM. **B**

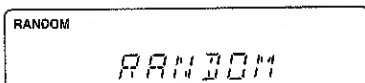
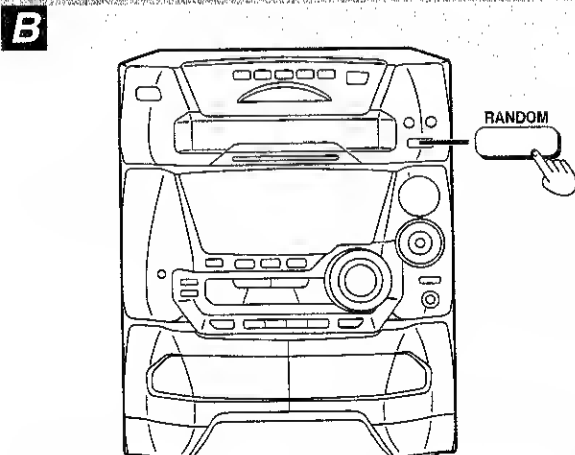
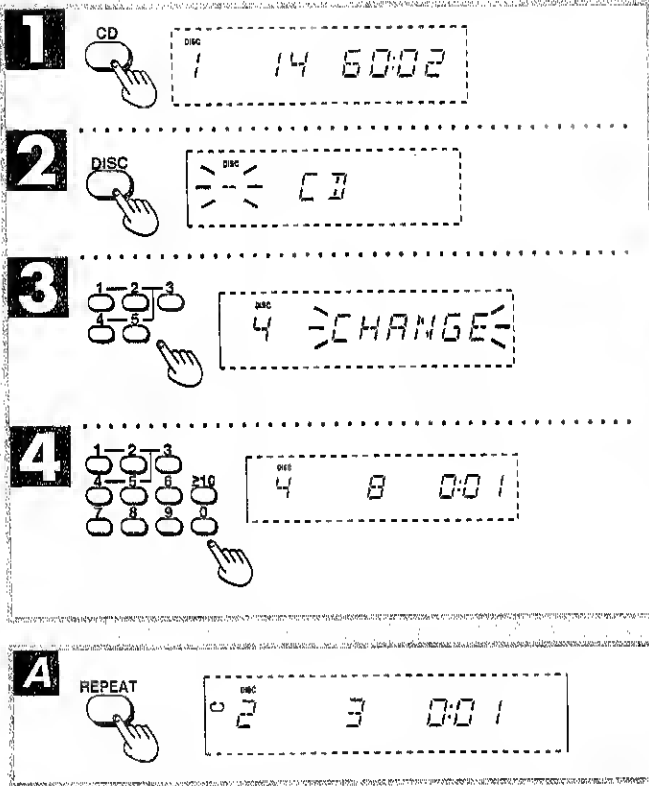
All tracks on the loaded CD will be played in random order. Playback will stop automatically when all tracks have been played.

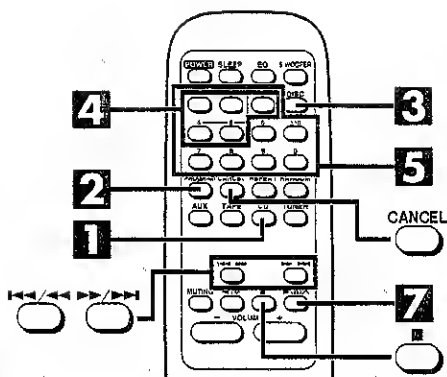
To cancel random play

Press RANDOM once again.

Note

You can use random play with your program. Only the programmed tracks will be played, but in random order.





1

DISC 1 14 6002

2

PRGM

3

DISC 0

4

Specified track number

DISC 4 0

5

Specified track number
 Program order

DISC 6 1

7

DISC 6 0:01 PRGM

A

DISC 3 CD FULL

B

DISC 3 CD P 14

Indicates program mode

Listening to compact discs

Program play

by remote control only

You can program up to 24 tracks.

- 1** Press CD.
Ensure CD is stopped.
- 2** Press PROGRAM.
- 3** Press DISC.
- 4** (within 10 seconds or so)
Press 1-5 to select the disc you want.
- 5** Press the numeric button to select the desired track.
- 6** Repeat steps 3 through 5 until you have programmed all the tracks you want.
- 7** Press ►/||/▲.
Play will start in the programmed sequence.

To cancel program play mode

Press PROGRAM in the stop mode.

Programmed contents will be saved in memory.

Pressing ■ will cancel program play, but it will also erase the entire program.

To select a two-digit track

Press ≥10 and then the two numbers you want.

When "CD FULL" appears

The number of programmed tracks is limited to 24. No further tracks can be programmed.

You can do the following during program mode

- Check program contents.
Press ◀/◀◀ or ▶▶/▶▶.
Everytime you press one of the buttons, the track and program No. are shown on the display.
- Add to the program.
Repeat steps 3 through 5.
- Cancel entries.

From the last programmed track	Press CANCEL.
A specified track only	Select the track with ◀◀/◀ or ▶▶/▶▶, and press CANCEL within 3 seconds.
All tracks	Press ■.

Memory retention

Your program is retained in memory for about 2 weeks while the system is unplugged.

To replay your program

If you turned OFF your program with PROGRAM, you can play it again as explained below.

1. Press PROGRAM.
2. Press ►/||/▲.

If you program a track not on your CDs

The track is initially programmed, but during program play, the player will skip that track and will continue playing from the next programmed item.

Listening to compact discs

To listen to special CDs and tracks (CD Manager function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

You can use this function to make recordings as well.

There are 3 CD/track selection modes.

- For playing back 1 track only from all loaded CDs
1-Track mode (1-TRACK)
- For playing back 1 CD only from all loaded CDs
1-Disc mode (1-DISC)
- For playing back 1 track on all loaded CDs
1-Track All-Disc mode (1-ALL)

1 Press CD.

Ensure CD is stopped.

2 Press CD MANAGER to select the desired mode.

Every time you press the button;

1-TRACK → 1-DISC → 1-ALL

↑ NORMAL ↓
(OFF)

1-TRACK: Only one particular track is played.

1-DISC: The tracks on only one particular disc are played.

1-ALL: The same track numbers on each of the CDs are played in succession.

(NORMAL: The original display is restored in about 3 seconds.)

3 Press DISC 1-DISC 5 to select the disc you want.

Note

This step is not required if 1-ALL was selected in step 2.

4 Press ◀◀/◀◀ or ▶▶/▶▶ to select the desired track.

Note

This step is not required if 1-DISC was selected in step 2.

5 Press ▶/II.

The selected track will start.

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To stop play

Press ■.

When playback ends

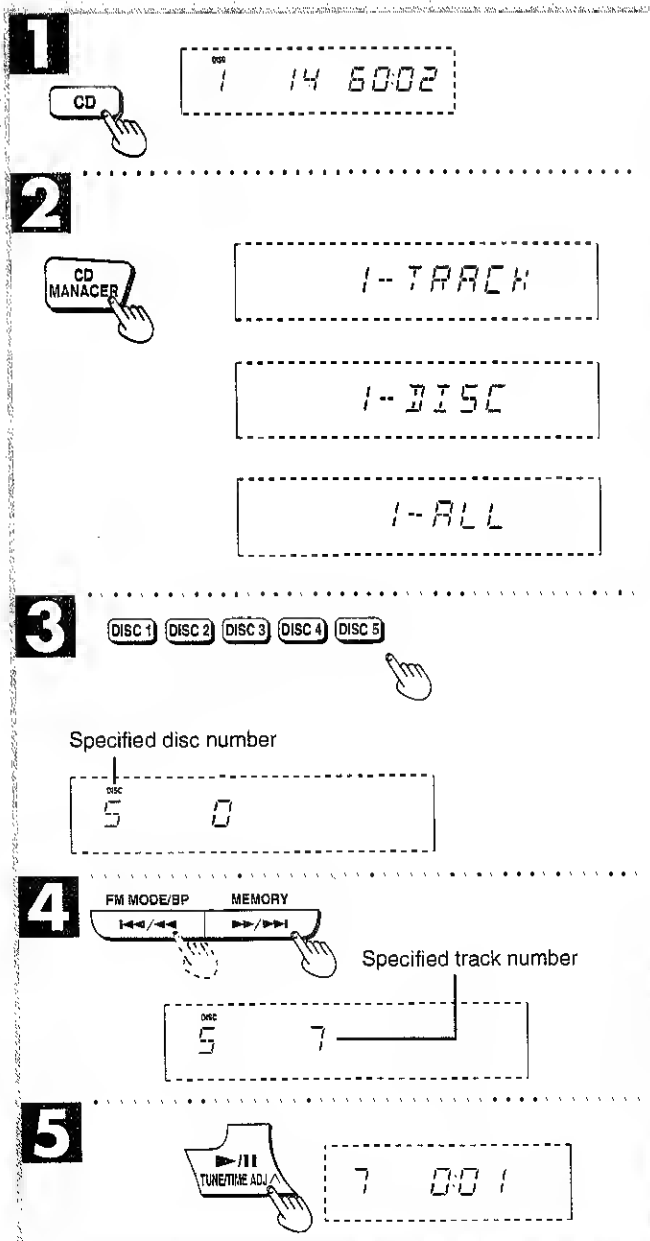
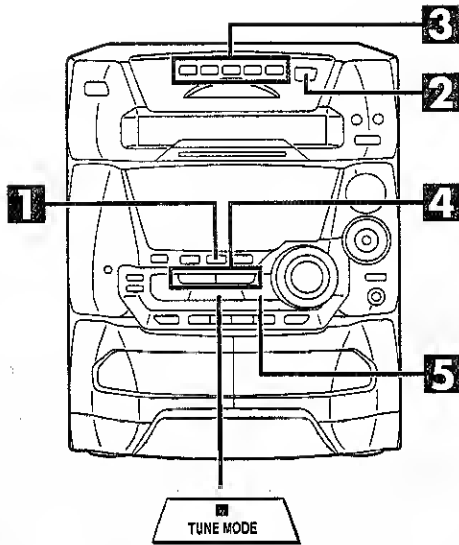
"NORMAL" will appear on the display for about 3 seconds, then the CD MANAGER function will turn OFF automatically.

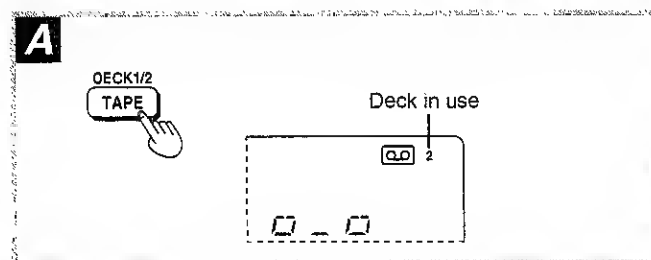
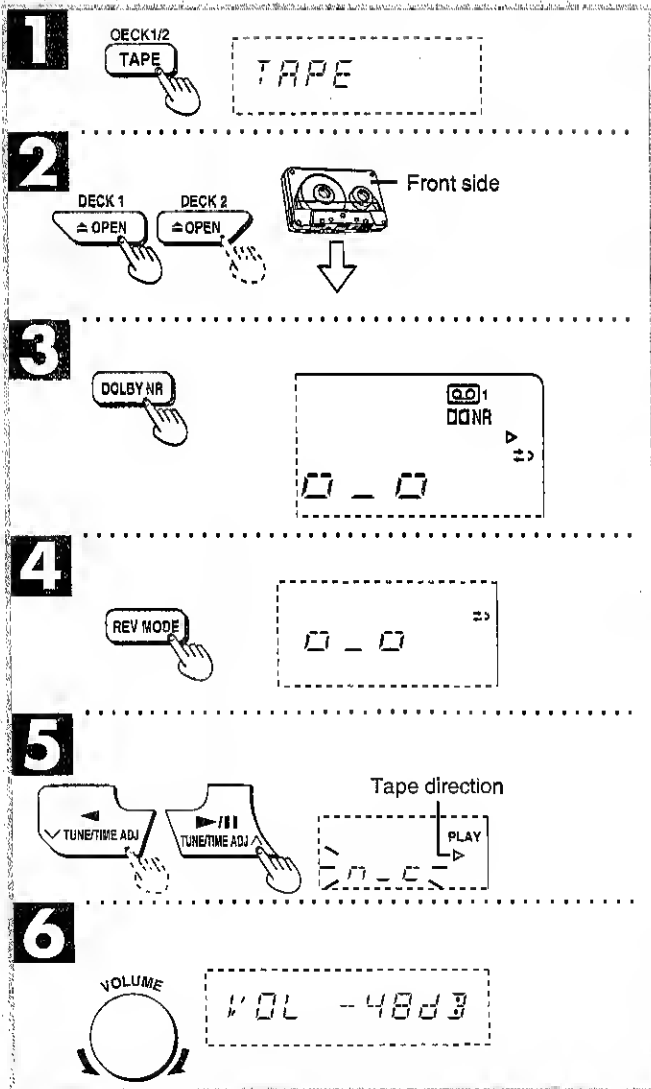
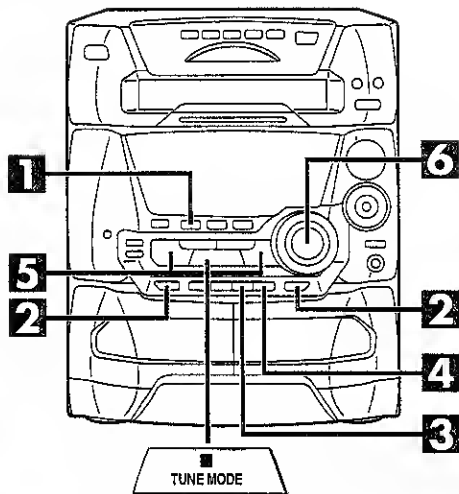
During play in the 1-ALL mode:

- It is not possible to skip back to a CD whose track has already been played.
- If a CD does not have the designated track number, it is skipped and play continues.

Note

You can use the repeat function (page 15) and random play (page 15) at the same time. However, in 1-TRACK mode, random play is not available.





Listening to tapes

Type of tape which can be played correctly:
The unit automatically identifies the type of tape.

NORMAL POSITION/TYPE I	○
HIGH POSITION/TYPE II	○
METAL POSITION/TYPE IV	○

You can use either deck 1 or deck 2 for tape playback.

- Press TAPE.**
The power will come on automatically.
- Press DECK 1 ▲ OPEN or DECK 2 ▲ OPEN and insert the tape.**
Insert the tape with the exposed tape facing down.
Close the holder by hand.
- Except SC-AK25 model for Australia and New Zealand Press DOLBY NR.**
You have to turn DOLBY NR ON/OFF according to the type of recording you made.
Every time you press the button: ☐ NR → (OFF)
- Press REV MODE to select the reverse mode.**
Every time you press the button:
 - ↔: One side is played, then playback stops automatically.
 - ↔↔: Both sides (front side → reverse side) are played one time each, then playback stops automatically.
 - ↔↔↔: Both sides are played 8 times each, then playback stops automatically.
- Press ◀ or ▶ to start playback.**
▶: The forward side (front side) will play.
◀: The reverse side will play.
- Adjust the volume level.**

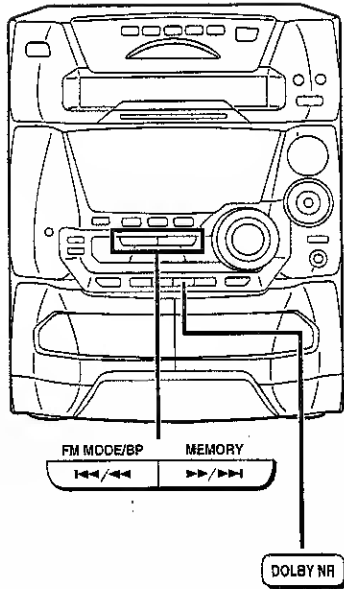
To stop tape playback
Press ■.

To change the deck to be used
Press TAPE DECK 1/2 to select the deck you want to use when you load cassettes into both decks.

To listen to 2 tapes consecutively
Load a tape into each deck and select ↔↔. Both tapes will be played 8 times each.

Note.
Playback is interrupted while playing back tapes, if you open the other deck.

Listening to tapes



To fast-forward or rewind the tape

Press **◀◀/▶▶** or **▶▶/▶▶** in the stop mode.

Tape direction	To rewind	To fast-forward
"▶"	◀◀/▶▶	▶▶/▶▶
"◀"	▶▶/▶▶	◀◀/▶▶

To find the beginning of a program (TPS: Tape Program Sensor)

Press **◀◀/▶▶** or **▶▶/▶▶** during play.

Tape direction	To play the current tune from the beginning	To play the next tune from the beginning
"▶"	◀◀/▶▶	▶▶/▶▶
"◀"	▶▶/▶▶	◀◀/▶▶

Note

The TPS function searches for silent parts of about 4 seconds in length which are normally found between tunes. As a result, it may not function properly in the following cases

- With short silent parts
- When noise occurs between tunes
- With silent parts found within tunes

About the Dolby noise-reduction system

Except SC-AK25 model for Australia and New Zealand

The Dolby noise-reduction system is designed to effectively reduce the annoying high-frequency "hissing" noise typical of cassette tapes.

During recording, the system functions to increase the high-frequency sound level, and then, during playback, that same portion is weakened to bring it back to the previous level.

The Dolby NR effect is obtained by selecting the same type of Dolby during playback as was used during recording.

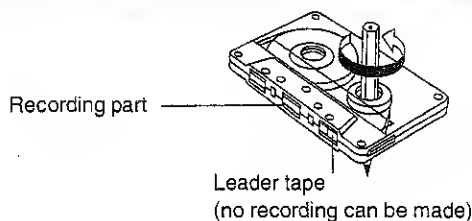
This unit includes the Dolby B NR-type.

Dolby B NR-type

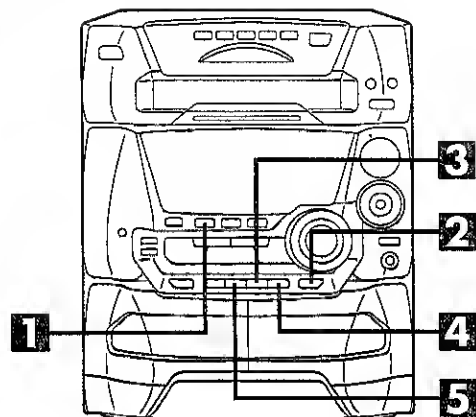
Noise is reduced to about one-third.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol **DD** are trademarks of Dolby Laboratories Licensing Corporation.

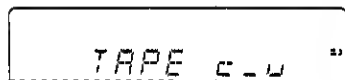
A



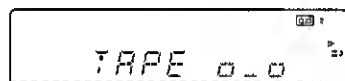
B



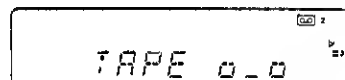
1



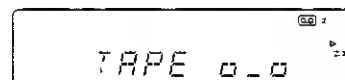
2



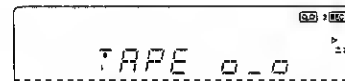
3



4



5



Before recording (Deck 2 only)

Types of tapes which can be recorded correctly

The unit automatically identifies the type of tape.

NORMAL POSITION/TYPE I	○
HIGH POSITION/TYPE II	○
METAL POSITION/TYPE IV	×

This system cannot make a recording or erasing correctly, if metal position tapes are used.

To record from the beginning of the tape **A**

You cannot record on the leader part of the tape. Before recording, wind the tape past the leader to a point where recording can start immediately.

How volume, sound quality/field and super woofer affect recording

The tape you are recording is not affected whatsoever by changes in volume, sound quality/field or super woofer.

- In recording, sound quality/field are set automatically to "FLAT".
- You can change volume and super woofer effect for the playback sound.

To erase a recorded sound **B**

1 Press TAPE.

2 Insert the recorded tape into deck 2.

3 **Except SC-AK25 model for Australia and New Zealand**
Press DOLBY NR so that the Dolby NR indicator goes off.

4 Press REV MODE to select reverse mode.

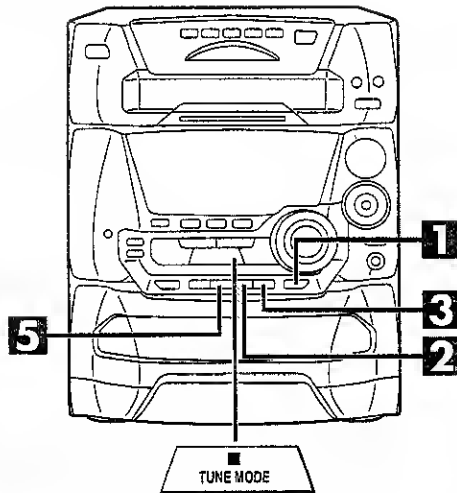
5 Press ● REC/STOP.

Note

- You cannot open deck 1 while recording.
- You cannot fast-forward or rewind one deck while recording with the other.

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

Recording from radio broadcasts



1 Press DECK 2 OPEN and insert the tape.

Close the holder by hand.

Tape direction is automatically set to "▶".

2 Except SC-AK25 model for Australia and New Zealand:

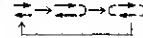
Press DOLBY NR.

You have to turn Dolby NR ON/OFF according to the type of recording you want to make.

Every time you press the button: NR → (OFF)

3 Press REV MODE to select the reverse mode.

Every time you press the button;



▶: One side is recorded, then recording stops automatically.

▶, ◀: Both sides (front side → reverse side) are recorded, then recording stops automatically.

4 Select a radio station. Perform steps 1 through 3 on page 12.

5 Press REC/STOP to start recording.

If you selected in step 3, the direction will automatically change to when recording starts.

To stop recording

Press REC/STOP again.

Recording can also be stopped by pressing .

To start recording on the reverse side

Load a tape and change the tape direction as following.

1. Press TAPE DECK 1/2 and select tape deck 2.
2. Press and immediately thereafter . The tape direction will be shown as "◀".

To record from a specific point on a tape

Before recording, advance the tape to the point from where you want to start recording.

To cut an unnecessary part while recording

1. Press REC/STOP during the unnecessary part. The cassette deck will go into the stop mode.
2. Press REC/STOP to resume recording again. Recording will continue in the same direction as before.

Note:

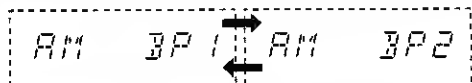
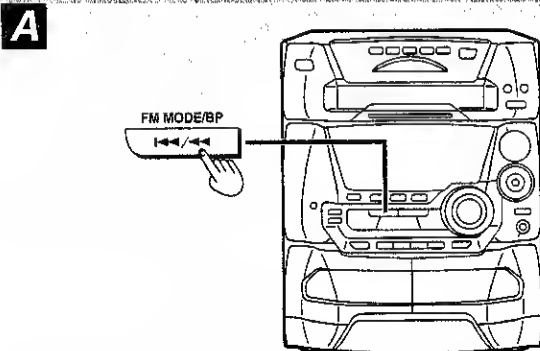
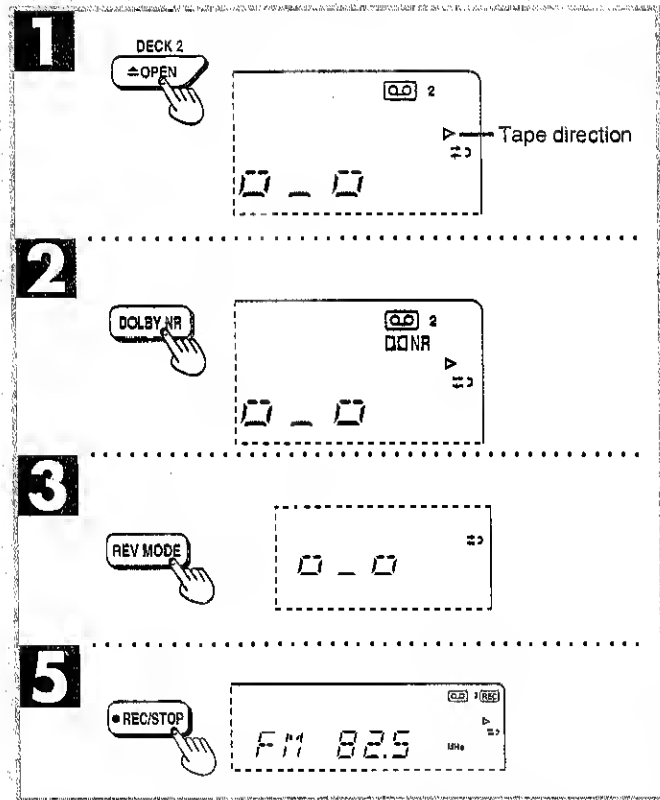
When recording an AM broadcast, sound is momentarily interrupted when you start and stop the recording.

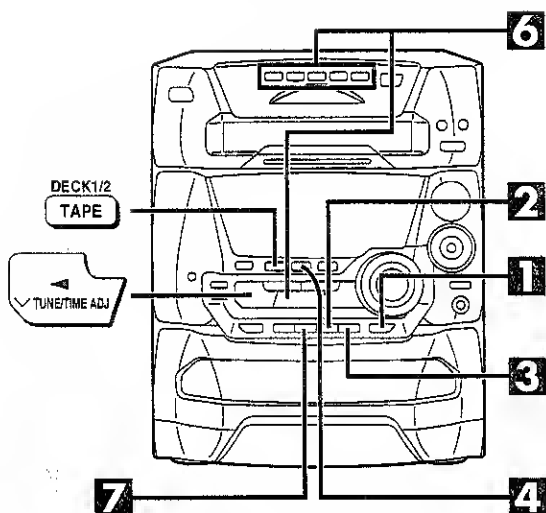
To reduce noise while AM recording (Beat proof function)

Press FM MODE/BP while recording.

Each time you press the button, BP 1 and BP 2 will be displayed alternately.

Select the position where there is less noise.





Recording from compact discs

1 Press DECK 2 \blacktriangle OPEN, and then insert the tape.

Close the holder by hand.

Tape direction is automatically set to "▶".

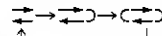
2 Except SC-AK25 model for Australia and New Zealand: Press DOLBY NR.

You have to turn Dolby NR ON/OFF according to the type of recording you want to make.

Every time you press the button: $\square\square$ NR \rightarrow (OFF)

3 Press REV MODE to select the reverse mode.

Every time you press the button;



$\leftarrow \rightarrow$: One side is recorded, then recording stops automatically.

$\leftarrow \rightarrow, \rightarrow \leftarrow$: Both sides (front side \rightarrow reverse side) are recorded, then recording stops automatically.

4 Press CD.

5 Load CDs into each of the trays.

(See page 13.)

6 Press DISC 1-DISC 5 to select the disc you want.

Pressing \blacksquare will stop playback.

7 Press \bullet REC/STOP to start recording.

• If you selected $\leftarrow \rightarrow$ in step 3, the direction will automatically change to $\rightarrow \leftarrow$ when recording starts.

• The recording will proceed from the first track on the selected CD and will continue on through the last track of the final disc (page 14).

• The tape deck stops automatically when the CD is finished.

To stop recording

• To add a 4 second silent interval before stopping.

Press \blacksquare . The CD will stop automatically too.

• To stop recording without a silent interval.

Press \bullet REC/STOP. The CD will stop automatically too.

To start recording on the reverse side

Load a tape and change the tape direction as following.

1. Press TAPE DECK 1/2 and select tape deck 2.

2. Press \blacktriangle and immediately thereafter \blacksquare . The tape direction will be shown as " \blacktriangle ".

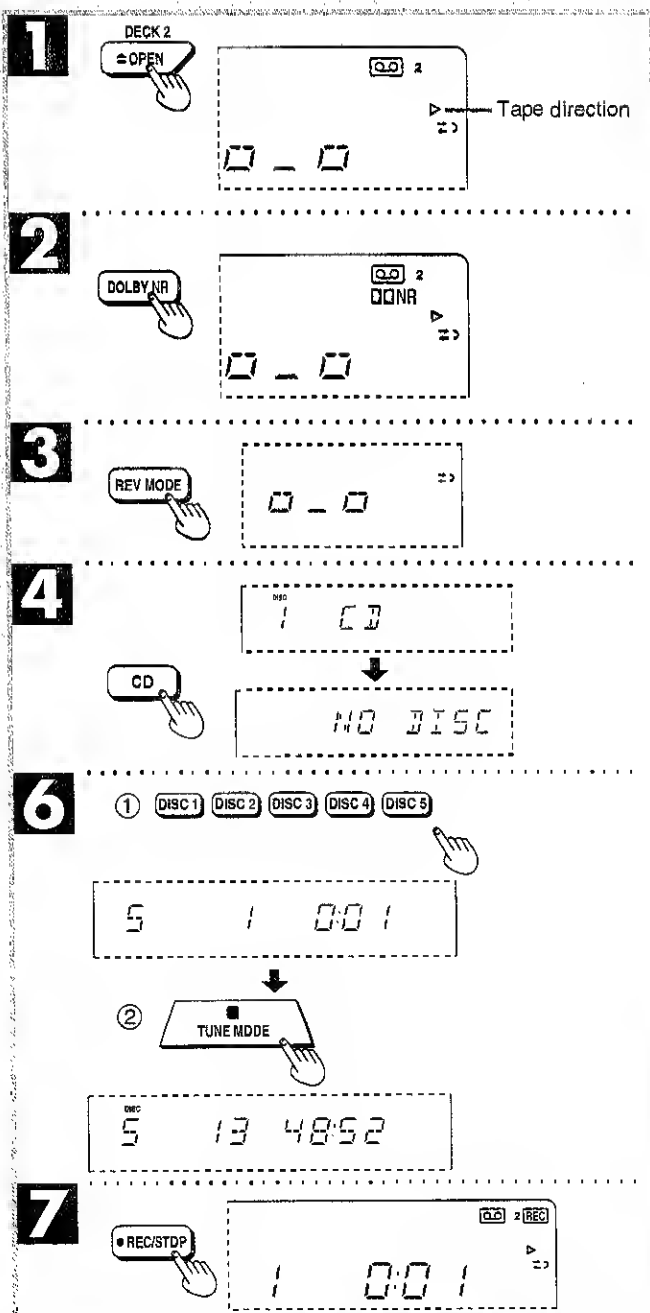
To record from a specific point on a tape

Before recording, advance the tape to the point from where you want to start recording.

To record programmed tracks

1. After step 5, program the track you want (performs steps 2-6 on page 16.)

2. Press \bullet REC/STOP to start recording.



Recording from compact discs

To record special CDs and tracks (CD Manager function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

• While recording, if a track is cut off in the middle at the end of the front side, it is re-recorded from the beginning, on the reverse side.

A

• At the end of the reverse side recording stops and the current track will be interrupted.

Before recording:

Prepare the tape you want to use. Performs steps 1 through 3 on page 22.

1 Press CD.

2 Press CD MANAGER to select the desired mode.

Every time you press the button;

1-TRACK → 1-DISC → 1-ALL

↑ NORMAL ↓
(OFF)

1-TRACK: Only one particular track is recorded.

1-DISC: The tracks on only one particular disc are recorded.

1-ALL: The same track numbers on each of the CDs are recorded in succession.

(NORMAL: The original display is restored in about 3 seconds.)

3 Press DISC 1-DISC 5 to select the disc you want.

Note

This step is not required if 1-All was selected in step 2.

4 Press ◀◀/▶▶ or ▶▶/▶▶ to select the desired track.

Note

This step is not required if 1-DISC was selected in step 2.

5 Press ● REC/STOP to start recording.

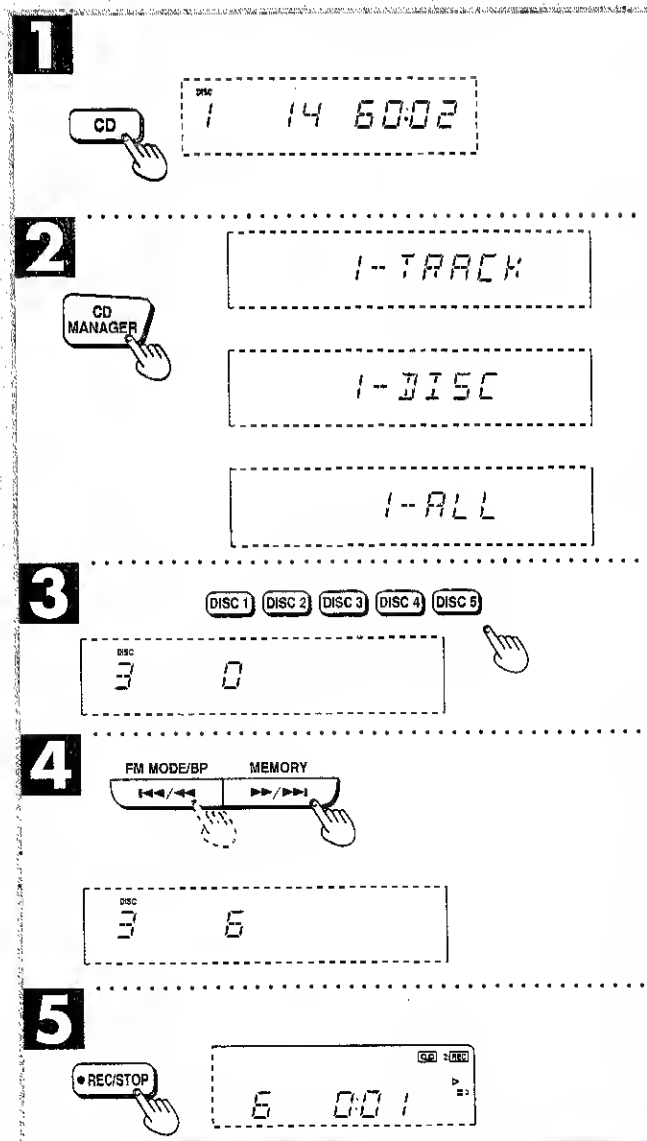
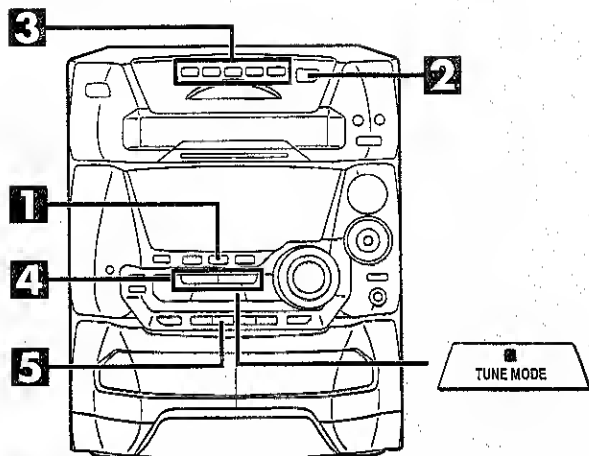
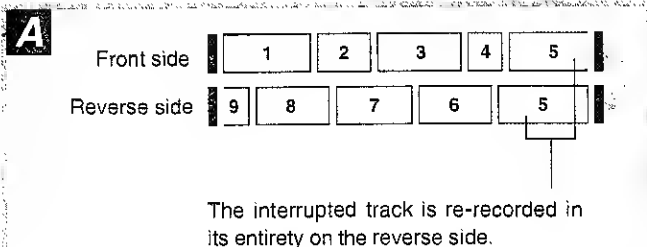
To stop recording

• To add a 4 second silent interval before stopping

Press ■. The CD will automatically stop too.

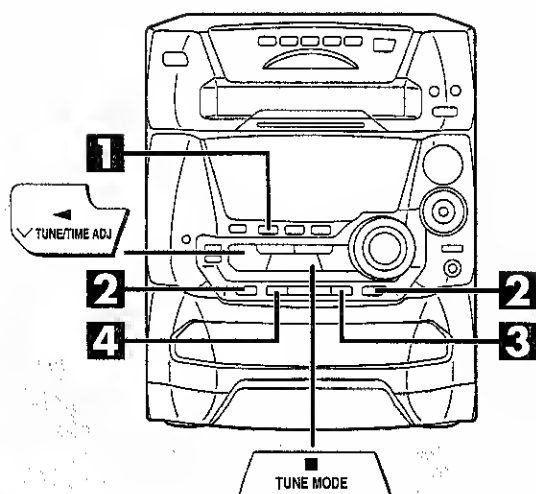
• To stop recording without a silent interval

Press ● REC/STOP. The CD will stop automatically too.



Tape-to-tape recording

The recording level and the Dolby effect will be recorded as they are on the tape being played back.



1 Press TAPE.

2 Press Δ OPEN on both decks and insert the tapes.

For playback: Into deck 1

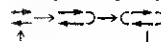
For recording: Into deck 2

Close the holders by hand.

Tape direction is automatically set to "►".

3 Press REV MODE to select the reverse mode.

Every time you press the button;

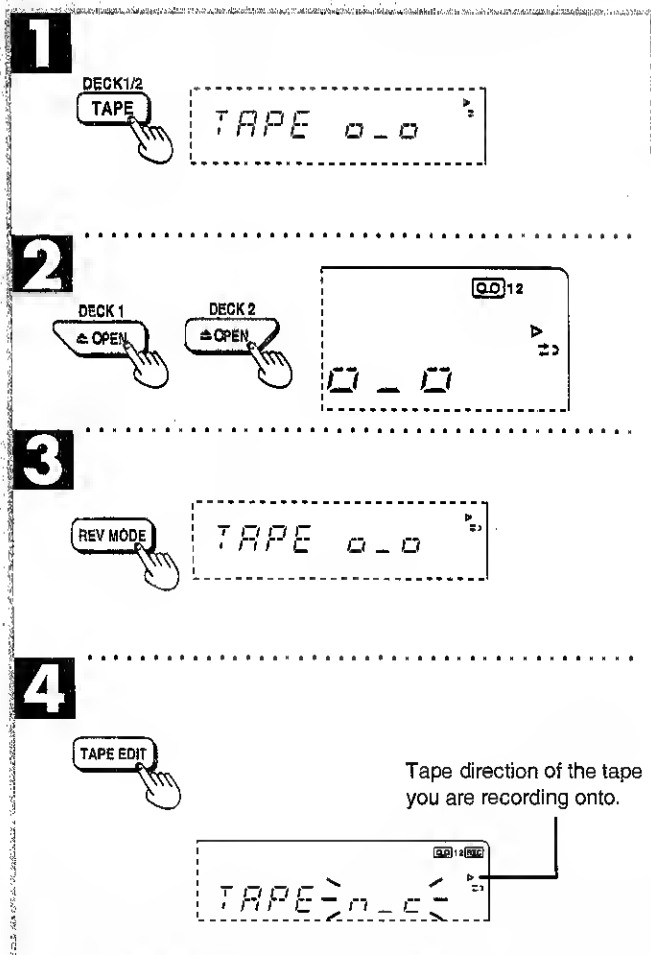


►: One side is recorded, then recording stops automatically.

◄►, ◄◄: Both sides (front side→reverse side) are recorded, then recording stops automatically.

4 Press TAPE EDIT to start recording.

• If you selected ◄◄ in step 3, the direction will automatically change to ► when recording starts.



To stop recording:

Press ■.

Both decks will stop.

To start recording on the reverse side

Load a tape and change the tape direction as following.

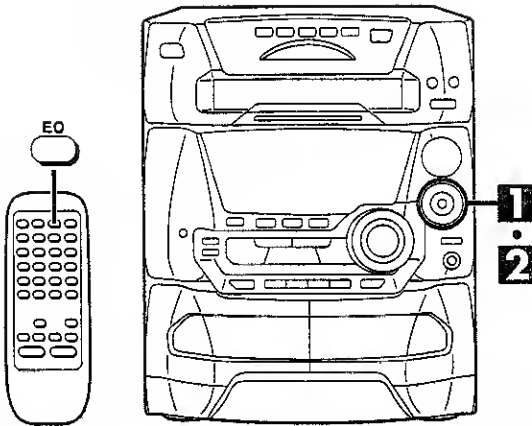
1. Press TAPE DECK 1/2 and select tape deck 2.

2. Press ◄ and immediately thereafter ■. The tape direction will be shown as "◄".

To record from a specific point on a tape

Before recording, advance the tape to the point from where you want to start recording.

Using the built-in sound quality/ sound field settings



- 1** Press SOUND EQ joystick to turn on the equalizer.

The SOUND EQ lamp lights more brightly, and "FLAT" is cleared.

- 2** Dial SOUND EQ to select the sound quality or sound field.

When it is turned clockwise, the settings are selected in the following sequence.

- ① **HEAVY (sound quality)**
Select this when playing rock or other kinds of music that sound better with an added punch.
- ② **CLEAR (sound quality)**
Select this for jazz or other kinds of music for which clarity in the treble range is desired.
- ③ **SOFT (sound quality)**
Select this when listening to background music.
- ④ **DISCO (sound field)**
Select this to produce sound with the same kind of lengthy reverberations heard at a disco.
- ⑤ **LIVE (sound field)**
Select this to make vocals more alive.
- ⑥ **HALL (sound field)**
Select this to add an expansiveness to the sound to produce the atmosphere of a great concert hall.
- ⑦ **MANUAL (see page 27)**
- ⑧ **AI EQ (see page 26)**
The original display is restored on the display panel in about 5 seconds. The sound quality/sound field setting can be changed as long as the SOUND EQ is on.

To release the equalizer

Press SOUND EQ joy stick so that "FLAT" is displayed.

When using the remote control to perform the operations described above

Press EO.

Each time this button is pressed, the setting is changed in the sequence given in step 2. Note that after "MANUAL" is displayed, "FLAT" is selected.

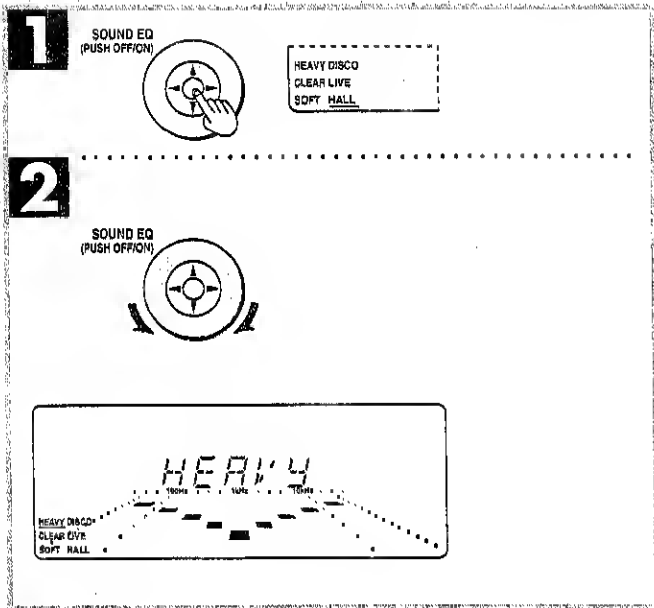
Boosting the super woofer

Press S.WOOFER.

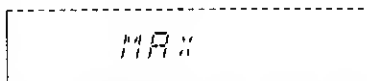
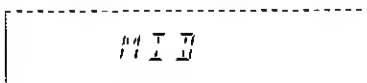
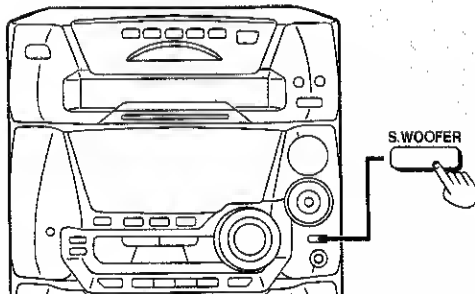
- When listening to the sound through the speakers
MID (medium) → MAX (high) → Light off (OFF)
- When listening to the sound through the headphones
Light on (ON) → Light off (OFF)

Note

All recordings are performed at the flat setting even if an alternative sound quality/sound field setting has been selected and the super woofer effect is set to ON.

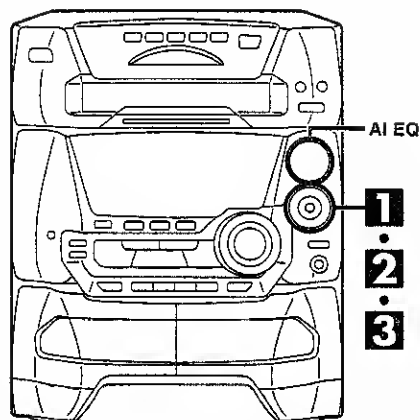


A



Varying the sound quality with the acoustic image (AI) equalizer

The AI equalizer uses the SOFT, SHARP, HEAVY and LIGHT sound quality coordinates to achieve subtle sound quality settings with ease.



1 Press SOUND EQ joystick to turn on the equalizer.

The SOUND EQ lamp lights more brightly, and "FLAT" is cleared.

2 Dial SOUND EQ to display "AI EQ."

When it is turned clockwise, the settings are selected in the following sequence.

- ① HEAVY
- ② CLEAR
- ③ SOFT
- ④ DISCO
- ⑤ LIVE
- ⑥ HALL
- ⑦ MANUAL
- ⑧ AI EQ

3 Operate SOUND EQ joystick and set the sound quality as desired.

① ← → direction: SOFT-SHARP setting

② ↓ ↑ direction: LIGHT-HEAVY setting

Repeat steps ① and ② to set the desired sound quality.

The original display is restored on the display panel in about 5 seconds. Only one AI EQ lamp lights to give a rough indication of the coordinate position.

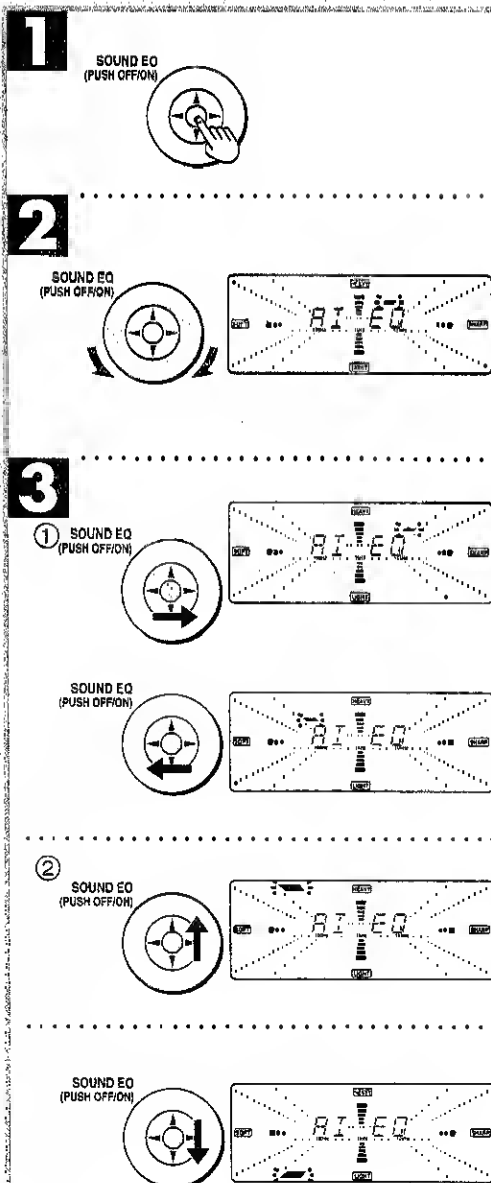
The sound quality can be re-selected using SOUND EQ while the lamp is lighted.

To release the equalizer

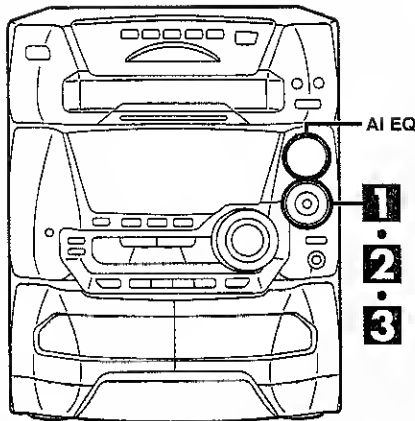
Press SOUND EQ joystick so that "FLAT" is displayed.

Note

- The sound quality setting is stored automatically. It is recalled when "AI EQ" is next selected.
- All recordings are performed at the flat setting even if an alternative sound quality setting has been selected.



Varying the sound quality with the manual equalizer



1 Press SOUND EQ joystick to turn on the equalizer.

The SOUND EQ lamp lights more brightly, and "FLAT" is cleared.

2 Dial SOUND EQ to display "MANUAL."

When it is turned clockwise, the settings are selected in the following sequence.

- ① HEAVY
- ② CLEAR
- ③ SOFT
- ④ DISCO
- ⑤ LIVE
- ⑥ HALL
- ⑦ **MANUAL**
- ⑧ AI EQ

3 Operate SOUND EQ joystick and set the sound quality as desired.

- ① ← → direction: For selecting the range of the sound to be adjusted

Characteristics of each sound range

- Under 100 Hz: Super woofer range
- Around 330 Hz: Bass to mid range
- Around 1 kHz: Midrange
- Around 3.3 kHz: Midrange to treble
- Above 10 kHz: Treble

- ② ↓ ↑ direction: For adjusting the level (7 steps)

When the level is in the center, the dot flashes rapidly. Repeat steps ① and ② to set the desired sound quality.

The original display is restored on the display panel in about 5 seconds. When the manual equalizer is ON, all four AI EQ lamps light.

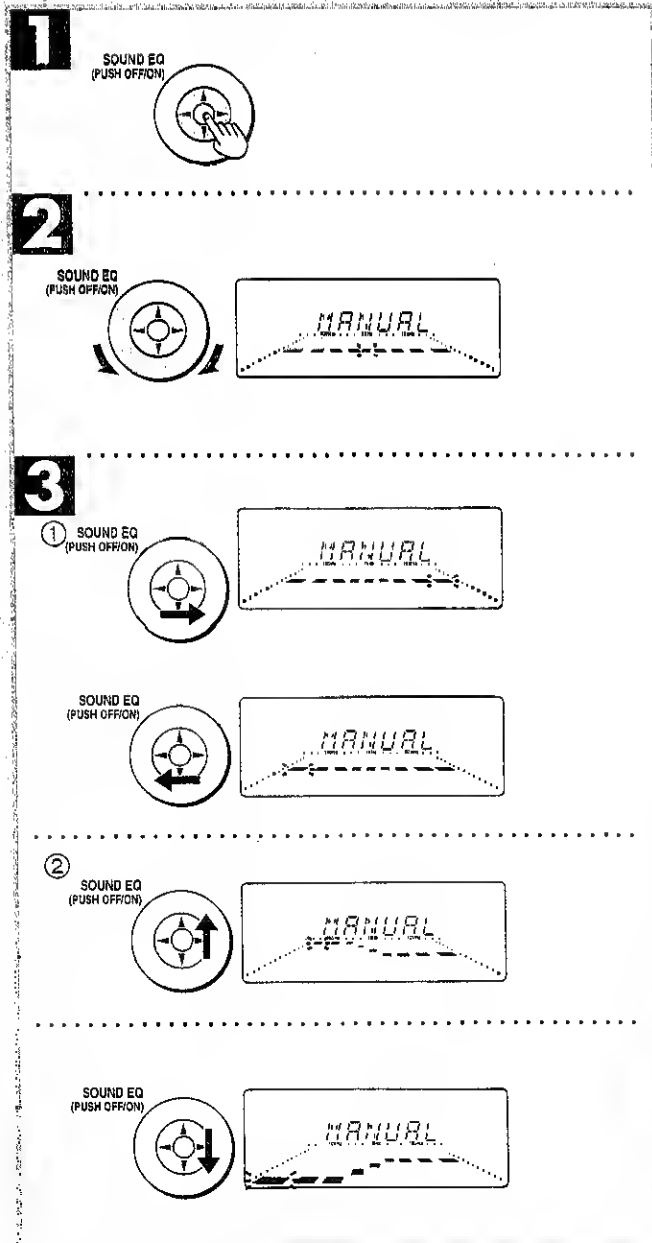
The sound quality can be re-selected using SOUND EQ while the lamp is lighted.

To release the equalizer

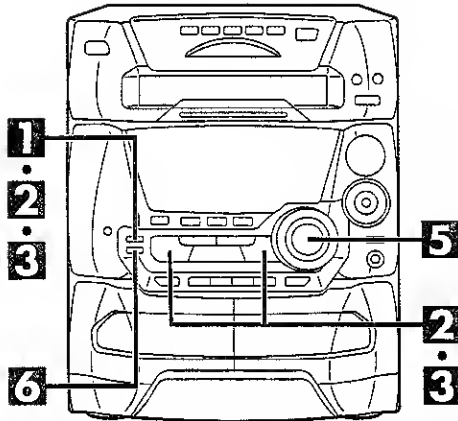
Press SOUND EQ joystick so that "FLAT" is displayed.

Note

- The sound quality setting is stored automatically. It is recalled when "MANUAL" is next selected.
- All recordings are performed at the flat setting even if an alternative sound quality setting has been selected.



Using the timer



Using the play timer

Select this timer when you want to use the timer as an alarm clock. You can wake up listening to music (CD, tuner, tape or aux) at a desired volume level and time.

Preparations

- Make sure that you have completed "Setting the time" on page 10.
- Switch on the power.

The figure shows how to set the play timer to play a CD from 6:30 to 7:40.

1 Press **CLOCK/TIMER** to select "⊕ PLAY".

Every time you press the button,

CLOCK → ⊕ PLAY → ⊕ REC
 ↑ Previous display ↓

2 "ON" time setting

(Within 8 seconds or so)

- 1 Press **∇** or **▲** to select the starting time.
- 2 Press **CLOCK/TIMER**.

3 "OFF" time setting

- 1 Press **∇** or **▲** to select the ending time.
- 2 Press **CLOCK/TIMER**.

4 Source selection

Select the desired source and then prepare for playing.

To play CD(s)

Press **CD** and insert CD(s).

If more than 1 CD is loaded

Press **DISC 1-DISC 5** to select the CD you want to hear first, and press **■**.

Note

Disc selection does not become part of the timer memory.

To play tape(s)

Press **TAPE** and insert tape(s).

If tapes are loaded in both decks, playback will start from deck 2.

To play the radio

Press **TUNER** and tune in the desired station.

To play a unit connected to the "AUX" terminals

Press **AUX**.

5 Play volume setting

Set the playback volume.

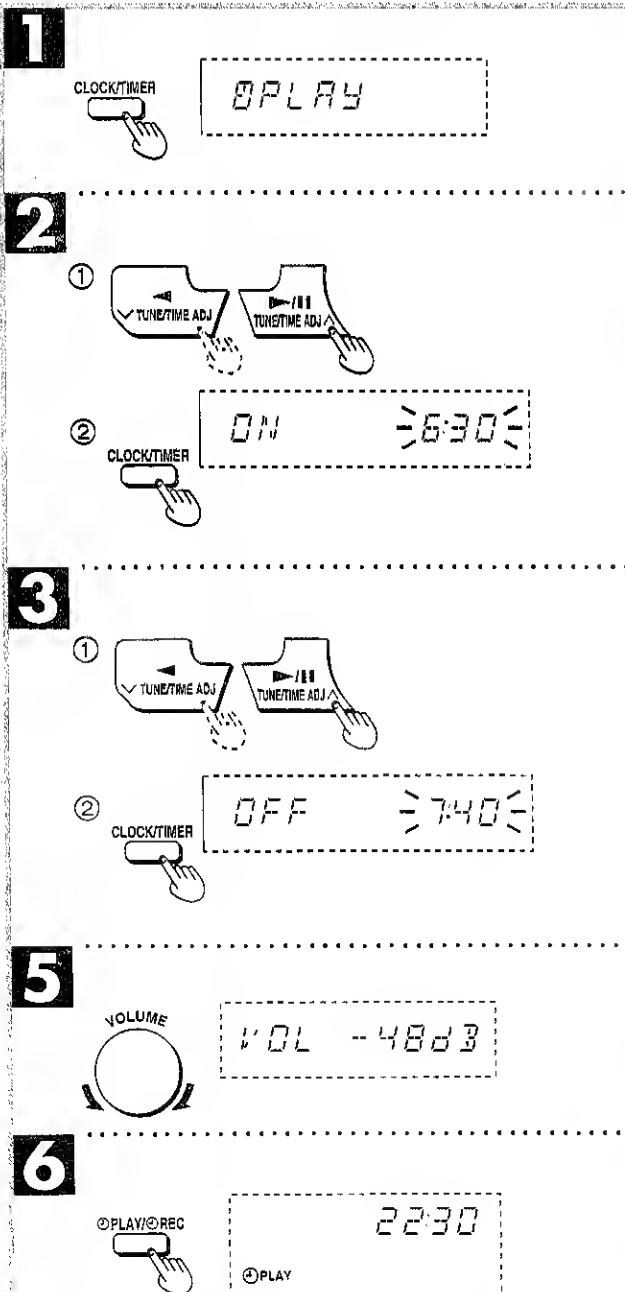
6 Press **⊕ PLAY/⊕ REC** to select "⊕ PLAY".

Every time you press the button,

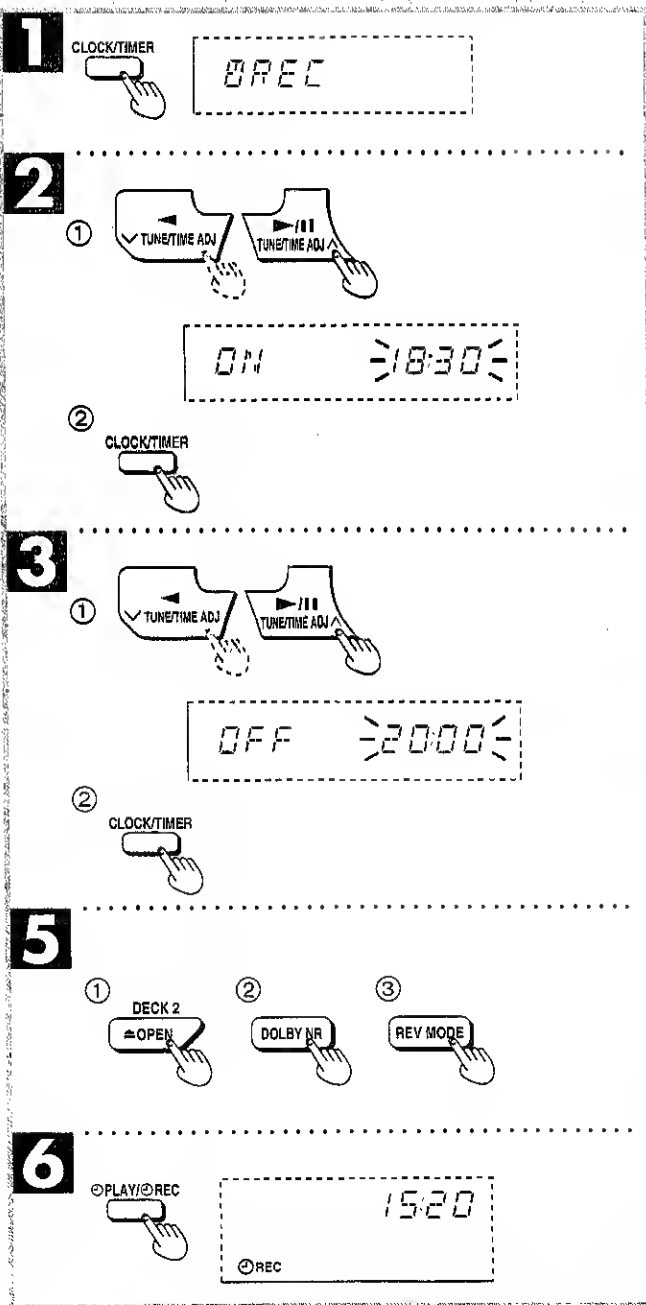
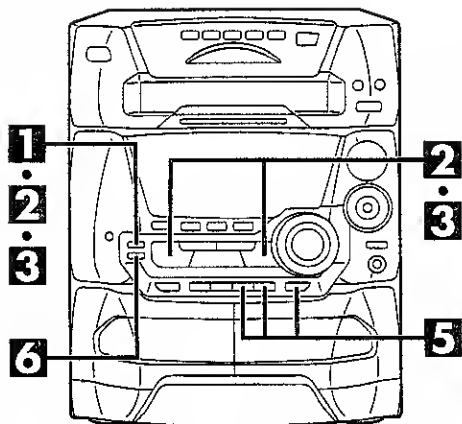
⊕ PLAY → ⊕ REC
 ↑ Out (OFF) ↓

The system will shut OFF automatically in a few seconds.

The timer play will start at the preset time with volume increasing gradually up to the volume level you preset.



Using the timer



Using the record timer

Select this timer when you want to use the timer to record a mid-night program or while you are out.

Preparations

- Make sure that you have completed "Setting the time" on page 10.
- Switch on the power.

Set the timer at least 2 minutes before you want to start recording.

The figure shows how to set the record timer for recording FM broadcasts from 18:30 to 20:00.

1 Press CLOCK/TIMER to select "⊕ REC".

Every time you press the button;

CLOCK → ⊕ PLAY → ⊕ REC

↑ Previous display ↓

2 "ON" time setting

(Within 8 seconds or so)

- 1 Press ∇ or \wedge to select the starting time.
- 2 Press CLOCK/TIMER.

3 "OFF" time setting

- 1 Press ∇ or \wedge to select the ending time.
- 2 Press CLOCK/TIMER.

4 Source selection

Select the desired source and then prepare for recording.

To record from the radio

Press TUNER to select the band and tune in the desired station.

To record from a unit connected to the "AUX" terminals
Press AUX.

5 Prepare for recording.

1. Insert a tape into deck 2 with the side on which the recording will start facing you.
2. **Except SC-AK25 model for Australia and New Zealand**
Select Dolby NR.
3. Select the reverse mode.

Note

Dolby NR and reverse mode do not become part of the timer memory.

6 Press ⊕ PLAY/⊕ REC to select "⊕ REC".

Every time you press the button;

⊕ PLAY → ⊕ REC

↑ (OFF) ↓

The system will shut OFF automatically in a few seconds.

About 30 seconds before the set time, the stereo mutes all sound automatically.

Using the timer

Using the play/record timer

To switch the timer OFF

Press \odot PLAY/ \odot REC and check " \odot PLAY" (for play timer) or " \odot REC" (for record timer) goes out.

If you set the timer incorrectly

Repeat the procedure from step 1.

To check settings

Press CLOCK/TIMER to select " \odot PLAY" (for play timer) or " \odot REC" (for record timer).

Two seconds later, the display will change in the following order.

•For play timer

- ① Play start time
- ② Play end time
- ③ Play source and playback volume

•For record timer

- ① Recording start time
- ② Recording end time
- ③ Recording source

You can check the settings even when the system is OFF.

To enjoy the desired source after the timer setting is completed

The volume level and music source are stored in the timer memory and the timer will start in these preset conditions. However, the Disc numbers, Dolby NR and reverse mode do not get stored in the timer memory.

1. After step 6, turn on the power and start playing the desired source.
2. Reset the Disc number, Dolby NR and reverse mode if you have changed any of them, confirm that a Disc or cassettes is inserted, then press power to put the unit on stand by.

Turning the timer ON/OFF

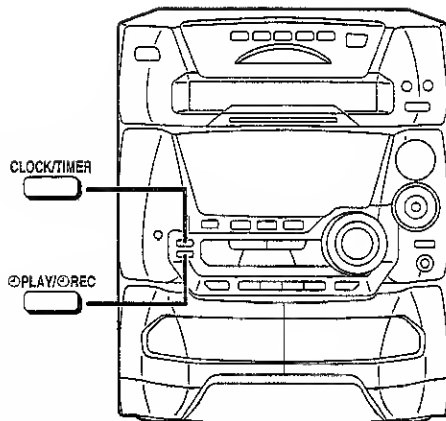
As long as " \odot PLAY" or " \odot REC" is displayed, the timer will come ON everyday as set.

You can turn the timer ON/OFF by pressing \odot PLAY/ \odot REC while the system is OFF.

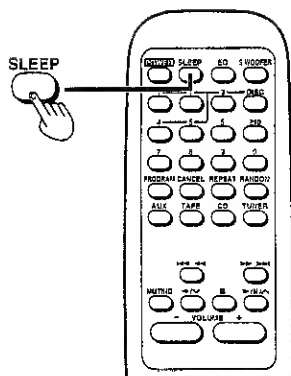
Remember that when " \odot PLAY" or " \odot REC" is displayed, the timer is ON. When not displayed, the timer is OFF.

Note:

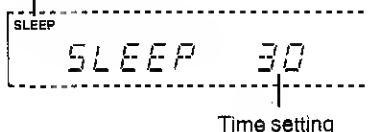
- If the power is on, the timer will not function. The system must be in the standby mode.
- If you switch the power to the standby mode while the play/record timer is functioning, the OFF time setting will not be activated.
- If AUX is selected as the source, when the timer comes ON, the system will turn ON and will engage "AUX" as the source. If you want to playback or record from a connected component, set the component's timer to the same time. (See the instruction manual that came with the component.)
- The play timer cannot be used in combination with the record timer.



A

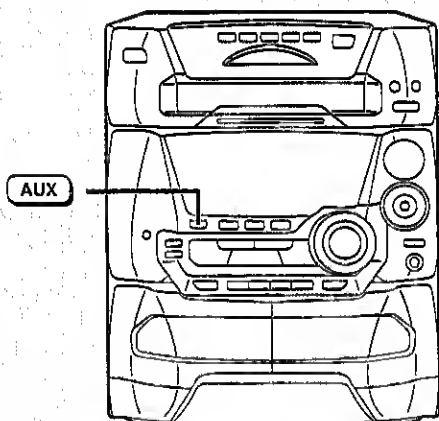


Check "SLEEP" is displayed

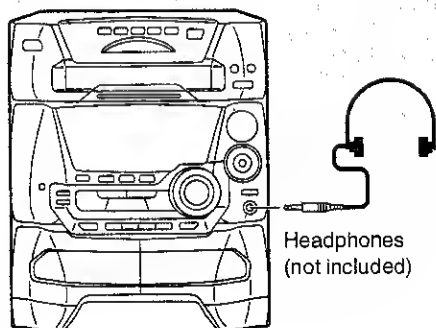


Time setting

B



C



Headphones
(not included)

Using the timer

Using the sleep timer

A

This timer turns power to your system OFF at the set time (Max. 2 hours, settable at 30 minutes interval). It lets you fall asleep listening to music.

by remote control only

Preparations

- Make sure that you have completed "Setting the time" on page 10.
- Switch on the power.

The figure shows how to set the system to standby mode after 30 minutes.

While enjoying the desired source:

Press **SLEEP** to select the desired time.

Every time you press the button;

→ 30 → 60 → 90 → 120 → OFF →

The system is turned off after the set time has elapsed.

To cancel the sleep timer:

Press **SLEEP** to select "OFF".

To confirm the remaining time:

(only while power is ON)

Press **SLEEP**.

To change the time remaining during operation:

Press **SLEEP** to show the remaining time then press **SLEEP** to select the desired time.

Note

- The sleep timer turns OFF automatically the moment you attempt to edit-record a CD using CD Manager function.
- The sleep timer can be used in combination with the play/record timer.

The sleep timer always has priority.
Be sure not to overlap timer settings.

Using an external unit

Listening to an external source

(See page 7 for external unit connection.)

1. Press **AUX**.
The power will come on automatically.
2. Start playback from the external source. (For details, refer to the owner's manual of the equipment.)

Recording from on external source

1. Follow steps 1–3 on page 21.
2. Press **AUX**.
3. Press **REC/STOP** (recording starts).
4. Start playback from the external source. (For details, refer to the owner's manual of the equipment.)

Listening with headphones

Reduce the volume level, and connect the headphones.

Plug type: 3.5 mm stereo

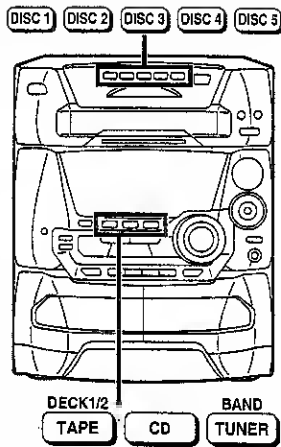
Note

Avoid listening for prolonged periods of time to prevent hearing damage.

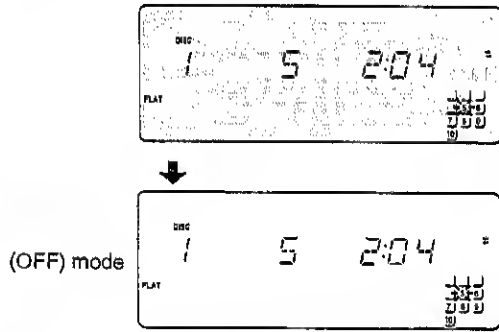
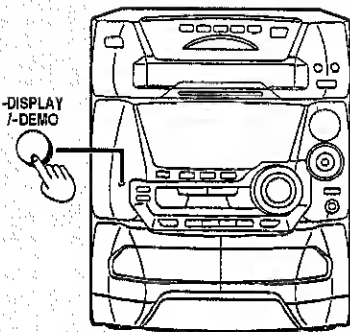
Timer

Reference

A

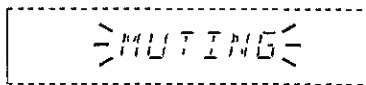
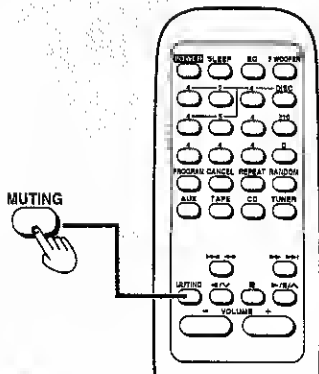


B



In the off mode no spectrum analyzer will appear.

C



Convenient functions

One-touch play

When the system is on standby, playing starts automatically when you press one of the following buttons.

Listening to radio broadcasts

TUNER

The station heard previously is tuned in.

Listening to compact discs

CD

Play starts from track 1 of the CD played previously.

DISC 1-DISC 5

Play starts from track 1 on the selected CD.

Listening to tapes

TAPE

Playback starts from deck 2 if tapes have been installed in both decks.

Switching displays

Press DISPLAY/DEMO to select the desired spectrum analyzer.

Every time you press the button;

Aurora → (OFF) → Normal

↑ Peak hold ↓

To mute the volume

by remote control only

This feature is convenient when you have a telephone call, etc.

Press MUTING.

Press the button again to cancel.

"MUTING" goes out.

Muting can also be cancelled by lowering the volume all the way (-dB).

When the system is turned off, the muting operation will be automatically cancelled.

Concerning CDs



With this system, you can only play CDs having this mark.

However, do not use irregular shape CDs (heart-shape, octagonal, etc.). CDs of the sort can damage the unit.



Handling precautions

Be sure to handle CDs according to the precautions shown on the left (-) . Failure to do so may damage the CD or the unit.

- If you are taking the CD from a cold to a warm environment, moisture may form on the CD. Wipe this off with a soft, dry, lint-free cloth before using the CD.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not attach labels or stickers to CDs. (Do not use CDs with exposed adhesive from tape or left over peeled off stickers.)
- Do not use scratch-proof protectors or covers other than those specified for use with this system.

Storage precautions

Be sure to store CDs in their cases to protect them from dust, scratches, and warping.

Do not place or store CDs in the following places

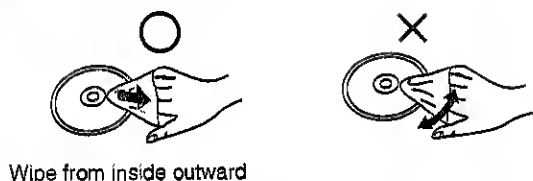
- Locations exposed to direct sunlight
- Humid or dusty locations
- Locations directly exposed to a heat vent or heating appliance
- In the glove compartment or on the rear deck of an automobile

How to hold CDs



Do not touch the recorded surface.

How to Clean CDs



Wipe from inside outward

How to take up tape slack



Concerning cassette tapes

Selection of cassette tapes

Tapes can get caught on the capstans. Use caution with the following types of tapes.

Cassette tapes exceeding 100 minutes

Tapes are made of a thin film material. Do not repeatedly advance and stop the tape, fast-forward it or rewind it.

Endless-tapes

For this unit, it is recommended to use tapes which are appropriate to the auto reverse mechanism.

Always read the Instructions provided with your tapes.

Tape slack

Tape slack may cause the tape to break.

Use a pencil or similar object to take up the slack.

Erasure prevention

Use a screwdriver or similar object to break out the tab.

To re-record on a protected cassette,

Cover the hole with adhesive tape.

Do not cover the detection hole on high-position tape.

Storage precautions

Do not place or store tapes in the following places

- In high temperature (35°C or higher) or high humidity (80% or higher) areas
- In a strong magnetic field (near a speaker, on top of a TV, etc.) This can erase a recording.
- Locations exposed to direct sunlight

Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

Problem	Probable cause(s)	Suggested remedy	Reference page(s)
---------	-------------------	------------------	-------------------

Problems common to all systems

There is no sound when the power is ON.	Volume is set too low.	Adjust the volume level with the volume control.	12, 14, 18
The location of the various musical instruments is not well defined.	The (+) and (-) connections to one of the speakers are reversed.	Connect the speaker cords correctly.	6
The left and right sounds are reversed.	The left and right connections to the speaker are reversed.	Connect the speaker cords correctly.	6
Low frequency sounds cannot be heard	Either the left or right LOW speaker cable is not connected	Connect the left and right speaker cables to the LOW terminals.	6
When listening to the external unit, the left and right sounds are reversed.	The left and right connections to the external unit are reversed.	Connect the external unit's cord correctly.	7
There is no sound when a source is being played.	The (+) and (-) wire of the speaker cords are shorted.	Switch the system to the standby mode, and reconnect the speaker cords so that they are not shorted. Then switch on the power.	6
"ERROR" message appears on the display.	Wrong operation has been done.	Operate the unit correctly by following the operating instructions.	
"---!" appears on the display	<ul style="list-style-type: none"> You plugged the power cord in for the first time. There was a power failure recently. 	Set the time.	10

While listening to FM broadcasts

There is a "rushing noise" during a stereo broadcast which is not audible during a monaural broadcast.	The transmitting station is a long distance.	If you are using an indoor antenna, change to an outdoor antenna.	7
You hear excessive noise during a stereo broadcast, and occasionally the sound disappears.	The installation location and orientation of the antenna are unsuitable.		
The stereo indicator ("STEREO") flickers and does not light completely.	The transmitting station is a long distance. The power of the TV set or VCR is ON.	Try switching off the TV set or VCR.	
The sound during a stereo broadcast is highly distorted.	There is a building or mountain nearby. [Distortion is caused by interference between the signal from the transmitting station (direct wave) and the signal reflected from the building or mountain (reflected wave).]	Use a high-grade outdoor antenna, and install it in a good location, height, and orientation for reception.	7

While listening to AM broadcasts

You hear an unusual beat sound.	You are using the system at the same time you are playing a TV set.	Switch off the TV set, or use the system further away from it.	
You hear a low-frequency hum.	The antenna wire is near the power cord.	Separate the antenna wire from the power cord.	

Problem	Probable cause(s)	Suggested remedy	Reference page(s)
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When there is a television set nearby

The picture on the TV disappears or stripes appear on the screen.	The location and orientation of the antenna are incorrect.	If you are using an indoor antenna, change to an outdoor antenna.	7
	The wiring at the back of the system is unsuitable.	Separate the antenna wire of the TV set from the system.	

When listening to tapes

Sound is low, intermittent, poor quality, noisy, scratchy, or unsteady.	Heads are dirty.	Clean the heads.	35
	Dolby-NR is set incorrectly. Except SC-AK25 model for Australia and New Zealand.	Match Dolby-NR ON/OFF according to the type of recording you made.	18
The deck does not enter the recording mode.	The erase-prevention tabs are removed from the cassette.	Attach tape to cover the space left by removal of the erase-prevention tabs.	33

While listening to compact discs

The display does not show the correct indication. Disc play does not start when you press the play button.	The disc label is upside down.	Set the disc with the label facing upward.	13
	The disc is dirty.	Wipe the disc with a soft cloth.	33
	The disc is scratched.	Replace the disc with a new one.	
	The disc is badly warped.		
	The disc is a nonstandard one.	Replace the disc with a different one.	33
A certain music passage can't be played correctly.	There is condensation inside the CD changer.	Wait for 60 minutes before using the CD player.	
		Wipe the disc with a soft cloth.	33

While using the remote control

The system cannot be operated with the remote control.	The batteries are installed in the reverse polarity.	Re-insert the batteries in the correct polarity.	5
	The batteries are run-down.	Replace the batteries with new batteries.	5

Maintenance

If the surfaces are dirty

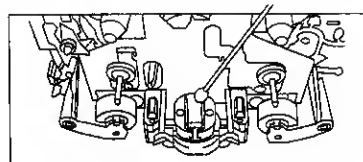
To clean this unit, wipe with a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- Never use alcohol, paint thinner, benzene, or chemically treated cloths to clean this unit.
- Before using chemically impregnated cloth, read the instructions that came with the cloth carefully.

For a cleaner crisper sound

We recommend that you periodically clean parts (the shaded portion in the figure below) the tape contacts like the heads. Do not use any solution other than alcohol for head cleaning.



Technical specifications

AMPLIFIER SECTION SC-AK45

RMS power output	
THD 10%, both channels driven	100 W per channel (6Ω)
1 kHz continuous power output	
THD 1%, both channels driven (DIN)	70 W per channel (6Ω)
Input sensitivity	
AUX	250 mV
Input Impedance	
AUX	10 kΩ

AMPLIFIER SECTION SC-AK25

RMS power output	
THD 10%, both channels driven	70 W per channel (6Ω)
1 kHz continuous power output	
THD 1%, both channels driven (DIN)	50 W per channel (6Ω)
Input sensitivity	
AUX	250 mV
Input Impedance	
AUX	10 kΩ

FM TUNER SECTION

Frequency range	87.50–108.00 MHz (50 kHz steps)
Sensitivity	
S/N 26 dB	1.5 μV
Antenna terminal(s)	75Ω (unbalanced)

AM TUNER SECTION

Frequency range	522–1629 kHz (9 kHz steps)
Sensitivity	
S/N 20 dB	500 μV/m

CASSETTE DECK SECTION

Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Eresure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase
Tape speed	4.8 cm/s
Frequency response (+3, –6 dB at DECK OUT)	
NORMAL (TYPE I)	35 Hz–14 kHz
HIGH (TYPE II)	35 Hz–14 kHz
S/N	

SC-AK45

Dolby NR off	50 dB (A weighted)
Dolby NR on	60 dB (CCIR)

SC-AK25

For Australia and New Zealand	50 dB (A weighted)
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For others

Dolby NR off	50 dB (A weighted)
Dolby NR on	60 dB (CCIR)

Wow and flutter

0.18% (WRMS)

Fast forward and rewind times

Approx. 120 seconds with C-60 cassette tape

CD SECTION

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source/wave length	Semiconductor laser/780 nm
Number of channels	Stereo
Frequency response	20 Hz–20 kHz (+1, –2 dB)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)

SPEAKER SECTION SC-AK45

Type	4 way speaker system
Speaker(s)	
Super woofer	17 cm cone type
Woofer	12 cm cone type
Midrange	6 cm cone type
Tweeter	Piezo type
Impedance	Total 6Ω
Input power	Total 160 W (Music) Total 80 W (DIN)
Output sound pressure level	84 dB/W (1.0 m)
Cross over frequency	200 Hz, 3.5 kHz
Frequency range	45 Hz–22 kHz (–16 dB) 55 Hz–20 kHz (–10 dB)
Dimensions (W×H×D)	250×330×310 mm
Weight	4.6 kg

SPEAKER SECTION SC-AK25

Type	2 way 2 speaker system
Speaker(s)	
Woofer	14 cm cone type
Midrange	8 cm cone type
Impedance	Total 8Ω
Input power	Total 100 W (Music) Total 50 W (DIN)
Output sound pressure level	84 dB/W (1.0 m)
Cross over frequency	200 Hz
Frequency range	48 Hz–22 kHz (–16 dB) 58 Hz–20 kHz (–10 dB)
Dimensions (W×H×D)	210×330×259 mm
Weight	3.5 kg

GENERAL SC-AK45

Power supply	
For United Kingdom, Australia and New Zealand	AC 230–240 V, 50 Hz
For others	AC 230 V, 50 Hz
Power consumption	133 W
Dimensions (W×H×D)	270×336×347 mm
Weight	7.5 kg

GENERAL SC-AK25

Power supply	
For United Kingdom, Australia and New Zealand	AC 230–240 V, 50 Hz
For others	AC 230 V, 50 Hz
Power consumption	156 W
Dimensions (W×H×D)	270×336×347 mm
Weight	7.1 kg

Notes:

- Specifications are subject to change without notice.
- Total harmonic distortion is measured by the digital spectrum analyzer.

MASH is a trademark of NTT.

Before moving or shipping this system

Prepare the system as described below to prevent damage to the mechanism.

- Remove all CDs.
- Press CD.
- Press ■ for 5 more seconds. The display will change from "WAIT" to "LOCKED" to "GOOD BYE" and finally "ZZZ". Then, the unit will be turned OFF automatically. (This will set the so-called "shipping mode".)
- Unplug the stereo.

The shipping mode will turn OFF automatically when you turn the power ON the next time.

THIS MUSIC SYSTEM IS CAPABLE OF RECEIVING THE NEW AM STEREO BROADCASTS FROM THE AM BAND RADIO STATIONS. HOWEVER LIKE MANY MUSIC SYSTEM CURRENTLY AVAILABLE ON THE MARKET IT WILL REPRODUCE THIS AM STEREO SIGNAL ONLY IN AM MONO, WHICH, IN EFFECT, IS OF NO LESSER QUALITY THAN YOUR EXISTING AM MONO MUSIC SYSTEM.

En

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